Final

ENVIRONMENTAL ASSESSMENT

PROPOSED CONSTRUCTION OF ARMY AND AIR FORCE EXCHANGE SERVICE NEW DAY STREET SHOPPETTE

Maxwell Air Force Base
Montgomery, Alabama

October 2003

Army and Air Force Exchange Service
Dallas, Texas

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Acronyms and Abbreviations

42 ABW	42nd Air Base Wing
42 CE	42nd Civil Engineering
µg/m^3	micrograms per cubic meter
AAFES	Army and Air Force Exchange Service
ACAM	Air Conformity Applicability Model
ADEM	Alabama Department of Environmental Management
ADT	average daily traffic
AETC	Air Education Training Command
AFB	Air Force Base
AFI	Air Force Instruction
AFPD	Air Force Policy Directive
ALAGASCO	Alabama Gas Corporation
AQCR	Air Quality Control Region
AVGAS	Aviation Grade Gasoline
bgs	below ground surface
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CRMP	Cultural Resource Management Plan
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DoD	Department of Defense
DRMO	Defense Reutilization Marketing Office
EA	environmental assessment
EIAP	Environmental Impact Analysis Process
EIS	environmental impact statement
EO	Executive Order
°F	degrees Fahrenheit
FICON	Federal Interagency Committee on Noise
FONSI	Finding of No Significant Impact
FY	fiscal year
HAP	Hazardous Air Pollutant
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
INRMP	Integrated Natural Resource Management Plan
IRP	Installation Restoration Program
Kwh	kilowatt hours
L_{dn}	day-night average sound level
MAFB	Maxwell Air Force Base
MAP	Management Action Plan
MGD	million gallons per day
mg/m^3	milligrams per cubic meter
MILOCN	military construction
MSA	Metropolitan Statistical Area
MSD/CEV	Maxwell Support Division Civil Engineering Environmental Section
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFRAP	No Further Remedial Action Planned
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
O&M	operations and maintenance
OU	operable unit
OWS	oil water separator
Pb	lead
PM_{10}	particulate matter less than 10 microns in diameter
POL	petroleum, oils, and lubricants
ppm	parts per million
PSD	Prevention of Significant Deterioration
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
SEL	sound exposure level
SF	square foot
SIP	State Implementation Plan
SO_2	sulfur dioxide
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USBC	U.S. Bureau of the Census
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	Underground Storage Tank
VOC	volatile organic compound

FINDING OF NO SIGNIFICANT IMPACT

CONSTRUCTION OF ARMY AND AIR FORCE EXCHANGE SERVICE DAY STREET SHOPPETTE AT MAXWELL AIR FORCE BASE, ALABAMA

Agency: United States Air Force

Purpose: The 42d Air Base Wing (ABW) at Maxwell Air Force Base (MAFB), Alabama and the Army and Air Force Exchange Service (AAFES) have initiated a planning program at MAFB to construct a new AAFES shoppette to rectify various functional inadequacies within the existing shoppette and to expand AAFES services and functions at the shoppette.

Proposed Action: The proposed action is to construct a new 17,762 SF AAFES shoppette at MAFB, Alabama to replace the existing 8,345 SF shoppette (Building 1112), which is undersized, outdated, and no longer capable of providing adequate services to personnel and dependents associated with MAFB. The new shoppette would also accommodate a 2,172 SF restaurant with drive-up window service, an automated carwash facility, 12 multi-purpose fuel dispensers, and an eight bay car care center.

The restaurant would either be operated by AAFES as a franchise or would be owned by AAFES. The three existing 10,000-gallon underground storage tanks (USTs) containing three grades of gasoline would serve 12 pump stations under a canopy on the north east side of the building. A drive-through service lane for the restaurant would be constructed at the south east side of the building. Approximately 98 parking spaces and site access roads encompassing approximately 127,000 SF of pavement would surround the building. The proposed action would require a total site area of approximately four acres. The proposed site is located at the existing Day Street shoppette, Building 1112. It is bounded to the north by West Selfridge Street, to the east by Air Base Boulevard, to the west by the existing shoppette parking lot and the boat and RV storage lot, and to the south by U.S. Highway 31 overpass and the railroad tracks. Access to the new shoppette from off-base would be through the Day Street Gate to West Selfridge Street. On-base access to the new shoppette would also be from West Selfridge Street.

Under the proposed action, the shoppette and supporting functions would increase their current levels of employment. The overall employment would increase by 12 employees for a total of 37 employees at the shoppette (including car care center, carwash, gasoline station, and restaurant).

Summary of Findings: The Environmental Assessment (EA) provides an analysis of the potential environmental impacts resulting from implementing the proposed action. Twelve resource areas were evaluated to identify potential environmental consequences: air quality, noise, land use, geological resources, water resources, biological resources, transportation and circulation, cultural resources, socioeconomics, environmental justice and protection of children, hazardous materials and wastes, and utilities. Evaluation of the proposed action indicates that

the natural and human environment would not be significantly impacted by proceeding with construction of the new mini-mall. Specific resource areas are summarized below.

Air Quality: Implementation of the proposed action would result in minor and temporary increases in criteria pollutant emissions associated with proposed demolition and construction activities. However, no long-term increase in criteria pollutant emissions would occur. Fugitive dust emissions (particulate matter less than 10 microns in diameter [PM_{10}]) would be reduced by employing dust minimization practices. Implementation of the proposed action would not lead to an exceedance of *de minimis* thresholds and estimated criteria pollutant emissions would not violate the National Ambient Air Quality Standards (NAAQS). Determination of conformity to the Alabama State Implementation Plan is not required. Therefore, no significant impacts to air quality would occur as a result of implementation of the proposed action.

Noise: Under the proposed action, minor, temporary impacts to the noise environment in the vicinity of the proposed demolition and construction site would occur. The use of heavy equipment for demolition and site preparation and development (e.g., vegetation removal, grading, and back fill) could potentially generate noise levels above average ambient noise levels. However, noise levels would be typical of standard construction activities; would cease with the completion of proposed construction activities; and would only occur during normal working hours (i.e., between 7:00 A.M. and 5:00 P.M., Monday through Friday). Furthermore, sound levels could be reduced through the use of equipment sound mufflers. The operation and use of the proposed facility would not generate significant noise levels and the noise environment at the installation would continue to be dominated by aircraft and vehicular traffic. Therefore, no significant impacts to the noise environment as a result of implementation of the proposed action would occur.

Land Use: Implementation of the proposed action would result in beneficial impacts to land use at MAFB. Use of the site selected for the proposed action is in accordance with the adopted Comprehensive Plan for MAFB and all project components will be designed and sited to be compatible with existing base land use. The proposed action would be centrally located within the Community-Commercial land use zone, thereby maintaining the functional relationship among community facilities. Furthermore, the site would be easily accessible to all family housing areas and community support areas. The site is also accessible to military personnel residing in the civilian community. Therefore, impacts to land use would not be significant.

Geological Resources: Demolition and construction activities associated with the proposed action would not significantly affect the geologic units underlying the installation as no unique geologic features or geologic hazards are present. Although ground disturbance would occur at the installation during construction, the construction would occur over previously disturbed surfaces. In addition, while proposed construction activities would require some minimal grading, no significant topographic features would be affected as a result of development associated with the proposed action. Soils would be disturbed during grading activities associated with proposed construction. However, implementation of Best Management Practices (BMPs) during demolition and construction would reduce impacts to soils associated with

grading and clearing activities. In addition, standard erosion control measures (e.g., silt fencing, sediment traps, application of water sprays, and revegetation of disturbed soils) would be implemented to reduce potential impacts related to these characteristics. Therefore, no significant impacts to geological resources would occur as a result of implementation of the proposed action.

Water Resources: Construction would have minor localized (i.e., site-specific) effects on surface water hydrology; however, BMPs would be incorporated during construction to minimize potential erosion, runoff, and sedimentation. The proposed action would disturb greater than one acre of land at MAFB. Therefore, AAFES would contact the Alabama Department of Environmental Management (ADEM) Water Division and file a Notice of Registration for National Pollution Discharge Elimination System (NPDES) General Permit coverage. In addition, a Construction Best Management Practices Plan would be developed and implemented on-site for the duration of the construction period. Proposed construction activities would not occur within a 100-year floodplain zone. Because the site of the proposed action is already nearly impervious, no appreciable net increase in stormwater discharge volumes and intensities are anticipated following completion of the proposed action. Site disturbance and construction associated with the proposed action are not anticipated to affect groundwater resources. Construction operations would not reach depths that could affect groundwater resources. Therefore, no significant impacts to water resources would occur as a result of implementation of the proposed action.

Biological Resources: Construction associated with the proposed action would require vegetation removal (i.e. grass) in landscaped and previously disturbed areas. However, due to the lack of sensitive vegetation at the proposed site, proposed construction would not have significant impacts on vegetation. No Federally-listed endangered, threatened, or proposed species, or their designated critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service, occur at or in the vicinity of the proposed action. Furthermore, the Alabama Department of Conservation and Natural Resources concludes that the closest sensitive species to the proposed action is recorded as occurring approximately 8.3 miles from the site of the proposed action. There are no delineated wetlands at or in the vicinity of the proposed action at MAFB. Therefore, there would be no impacts to biological resources as a result of implementation of the proposed action.

Transportation and Circulation: Implementation of the proposed action would result in a minor temporary increase in average daily traffic volumes on-base and within the vicinity of the installation during demolition and construction activities. However, construction-related traffic would constitute a small percentage of traffic in the region and most vehicles would remain on site for the duration of construction activities. From an operational standpoint, the proposed action would result in beneficial impacts to vehicle circulation. The proposed action would increase the number of gasoline dispensers from 4 to 12 which would improve efficiency of cars flowing in and out of the gasoline station during peak hours. In addition, the expansion and reconfiguration of the new shoppette access roads would improve traffic congestion that

currently queue up in the parking lot during peak traffic periods. An increase in vehicle trips on adjacent roads may be realized as a result of the new shoppette. However, the increase in traffic levels would not significantly affect safety and/or the capacity of roads at the installation and within the region. The ingress and egress design for the proposed shoppette is under review and consideration by AAFES and personnel at MAFB to ensure that the most appropriate design is selected to minimize potential impacts associated with traffic and circulation. There would be no impacts to existing installation parking as adequate parking would be accommodated on-site. Therefore, there would be no impacts to transportation and circulation as a result of the implementation of the proposed action.

Cultural Resources: The proposed construction would take place in an area previously disturbed by urban development. All regulations and policies relevant to the protection of cultural resources would be adhered to by AAFES during the construction process. However, no archaeological sites or architectural resources are known to exist at, or in the vicinity of, the proposed action. Therefore, no significant impacts to cultural resources would occur as a result of implementation of the proposed action.

Socioeconomics: Employment levels and annual sales are projected to increase under the proposed action. Thus, while there would likely be a loss in sales tax revenues to the surrounding areas, as well as a minor loss in revenue to local and regional merchants from AAFES-owned and operated business sales, there would also be an offsetting benefit to the economy through the creation of 12 new jobs, and procurements for construction of the shoppette. The multiplier effect would amplify these benefits, resulting in additional growth through reinvestment in the region. As a result of this offsetting activity, no significant adverse impacts to socioeconomic resources are anticipated.

Environmental Justice and Protection of Children: Under the proposed action, construction activities would be limited to the four acre site chosen for the shoppette. Analyses of resource areas conclude that populations (including minority and low-income populations) within and outside the installation would not be significantly impacted. Therefore, implementation of the proposed action would not disproportionately impact minority or low-income populations. Implementation of the proposed action would not result in environmental health risks or safety risks to children, as no housing or facilities for children exist adjacent to, or in the immediate vicinity of, the site of the proposed action. Therefore, no significant impacts to children from health risks or safety risks would occur as a result of implementing the proposed action.

Hazardous Materials and Wastes: The proposed action is not expected to have an impact on the management of hazardous materials at MAFB and the proposed shoppette operation is not considered a large quantity generator of hazardous materials or hazardous waste. The car care center operations would continue to generate small quantities of hazardous waste (i.e., waste oil) and would be expected to follow all mandates outlined in the various management plans that have been developed for the tenants of MAFB.

Review of documents describing the investigations and actions completed to date for the SS-010 site indicates that there are groundwater contamination plumes extending north and northeast from the Fuel Tank Farm (ST-010) and down gradient towards Building 941. Both IRP sites are currently in the investigation/corrective action process as part of the base-wide OU-1 groundwater cleanup strategy outlined in the Proposed Plan for Maxwell AFB. No groundwater contamination is known to occur at the proposed action site and the existing groundwater contamination plume appears to be flowing down gradient away from the up gradient project site. Soil sampling conducted at the Day Street Auto Pride Service Station facility indicate no reportable soil contamination, indicating no further action or study is warranted. In order to minimize the threat of exposure to potentially contaminated soils at the site, any soils excavated as part of the proposed action would be properly segregated by the construction contractor and then sampled by representatives of the Environmental Section at MAFB. Sample results would determine whether soils can be reused on the site or require proper disposal off-site at a facility permitted to receive the soils pursuant to appropriate State of Alabama regulations. Furthermore, procedures to minimize dust during excavation and construction will be implemented on-site. Therefore, no significant impacts would occur as a result of implementing the proposed action.

Utilities: No daily limits are placed on MAFB regarding the consumption of electricity, natural gas, and potable water. In addition, regional facilities that would handle wastewater and solid waste from the proposed action have adequate capacity to accommodate anticipated minimal increases. Therefore, no significant impacts to utilities would occur as a result of implementation of the proposed action.

Finding of No Significant Impact (FONSI): After review of the EA prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) Regulations, and Air Force Instruction 32-7061, I have determined that the proposed action would not have significant adverse impacts on the natural and human environment; therefore, an Environmental Impact Statement does not need to be prepared.

JOHN A. NEUBAUER
Colonel, USAF
Commander, 42d Air Base Wing

30 OCT 03
Date

EXECUTIVE SUMMARY

The 42d Air Base Wing at Maxwell Air Force Base (MAFB), Alabama and the Army and Air Force Exchange Service (AAFES) have initiated a planning program at MAFB to construct a new AAFES shoppette to rectify various functional inadequacies within the existing shoppette and to expand AAFES services and functions at the shoppette.

This environmental assessment (EA) evaluates the significance of potential environmental and human resource impacts associated with the implementation of the proposed action and No-Action Alternative at MAFB, Alabama. This EA describes existing conditions and potential impacts on environmental resources at the installation and within the region.

The proposed action is to construct a new 17,762 square foot (SF) AAFES shoppette at MAFB, Alabama to replace the existing 8,345 SF shoppette (Building 1112), which is undersized, outdated, and no longer capable of providing adequate services to personnel and dependents associated with MAFB. The new shoppette would also accommodate a 2,172 SF restaurant with drive-up window service, an automated carwash, 12 multi-purpose fuel dispensers, and an eight bay car care center.

Implementation of the proposed action would result in enhanced efficiency of AAFES operations by providing adequately sized and properly configured facilities, working space, and storage to meet AAFES' needs relative to existing customer demands. In addition, the new shoppette and associated facilities would be constructed at the existing Day Street Shoppette (Building 1112) to minimize potential environmental and human resource impacts and has also been located in accordance with established land use plans and policies.

The EA evaluated 12 resource areas to identify potential environmental consequences: air quality, noise, land use, geological resources, water resources, biological resources, transportation and circulation, cultural resources, socioeconomics, environmental justice and protection of children, hazardous materials and wastes, and utilities. Impacts resulting from proposed construction activities would be temporary and minor; no long-term impacts would result from implementation of the proposed action at the installation. Direct, indirect, and cumulative impacts associated with the proposed action and No-Action Alternative at the installation would not be significant for all resource areas. Specific resource areas are summarized below.

Air Quality: Implementation of the proposed action would result in minor and temporary increases in criteria pollutant emissions associated with proposed demolition and construction activities. However, no long-term increase in criteria pollutant emissions would occur. Fugitive dust emissions (particulate matter less than 10 microns in diameter [PM_{10}]) would be reduced by employing dust minimization practices. Implementation of the proposed action would not lead to an exceedance of *de minimis* thresholds and estimated criteria pollutant emissions would not violate the National Ambient Air Quality Standards (NAAQS). Determination of conformity to

the Alabama State Implementation Plan is not required. Therefore, no significant impacts to air quality would occur as a result of implementation of the proposed action.

Noise: Under the proposed action, minor, temporary impacts to the noise environment in the vicinity of the proposed demolition and construction site would occur. The use of heavy equipment for demolition and site preparation and development (e.g., vegetation removal, grading, and back fill) could potentially generate noise levels above average ambient noise levels. However, noise levels would be typical of standard construction activities; would cease with the completion of proposed construction activities; and would only occur during normal working hours (i.e., between 7:00 A.M. and 5:00 P.M., Monday through Friday). Furthermore, sound levels could be reduced through the use of equipment sound mufflers. The operation and use of the proposed facility would not generate significant noise levels and the noise environment at the installation would continue to be dominated by aircraft and vehicular traffic. Therefore, no significant impacts to the noise environment as a result of implementation of the proposed action would occur.

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Geological Resources: Demolition and construction activities associated with the proposed action would not significantly affect the geologic units underlying the installation as no unique geologic features or geologic hazards are present. Although ground disturbance would occur at the installation during construction, the construction would occur over previously disturbed surfaces. In addition, while proposed construction activities would require some minimal grading, no significant topographic features would be affected as a result of development associated with the proposed action. Soils would be disturbed during grading activities associated with proposed construction. However, implementation of Best Management Practices (BMPs) during demolition and construction would reduce impacts to soils associated with grading and clearing activities. In addition, standard erosion control measures (e.g., silt fencing, sediment traps, application of water sprays, and revegetation of disturbed soils) would be implemented to reduce potential impacts related to these characteristics. Therefore, no significant impacts to geological resources would occur as a result of implementation of the proposed action.

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Review of documents describing the investigations and actions completed to date for the SS-010 site indicates that there are groundwater contamination plumes extending north and northeast from the Fuel Tank Farm (ST-010) and down gradient towards Building 941. Both IRP sites are currently in the investigation/corrective action process as part of the base-wide OU-1 groundwater cleanup strategy outlined in the Proposed Plan for Maxwell AFB. No groundwater contamination is known to occur at the proposed action site and the existing groundwater contamination plume appears to be flowing down gradient away from the up gradient project site. Soil sampling conducted at the Day Street Auto Pride Service Station facility indicate no reportable soil contamination, indicating no further action or study is warranted. In order to minimize the threat of exposure to potentially contaminated soils at the site, any soils excavated as part of the proposed action would be properly segregated by the construction contractor and

then sampled by representatives of the Environmental Section at MAFB. Sample results would determine whether soils can be reused on the site or require proper disposal off-site at a facility permitted to receive the soils pursuant to appropriate State of Alabama regulations. Furthermore, procedures to minimize dust during excavation and construction will be implemented on-site. Therefore, no significant impacts would occur as a result of implementing the proposed action.

Utilities: No daily limits are placed on MAFB regarding the consumption of electricity, natural gas, and potable water. In addition, regional facilities that would handle wastewater and solid waste from the proposed action have adequate capacity to accommodate anticipated minimal increases. Therefore, no significant impacts to utilities would occur as a result of implementation of the proposed action.

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FINAL
ENVIRONMENTAL ASSESSMENT

PROPOSED CONSTRUCTION OF ARMY AND AIR FORCE EXCHANGE SERVICE SHOPPETTE
AT
MAXWELL AIR FORCE BASE, ALABAMA

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1 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

Maxwell Air Force Base is a United States Air Force Base (AFB) under the Air Education and Training Command (AETC). Maxwell AFB (MAFB) currently occupies approximately 2,475 acres of lands in Montgomery County in Central Alabama (Figure 1-1). MAFB is headquarters to Air University and the 42d Air Base Wing (42 ABW). The 42 ABW's primary mission is to provide support to Air University, the Air Force's professional military education center.

The Army and Air Force Exchange Service (AAFES) operates several facilities at MAFB in support of a regional population of approximately 29,713 people (includes military, military dependents, and civilian employees). The existing Day Street Shoppette is located in Building 1112 and is a 8,345 square foot (SF) shoppette. The facility includes an Auto Pride gasoline station with four gasoline dispensers and a car care center with five bays (Figure 1-2).

Building 1112 was constructed in 1982 and renovated in 1987 to house the AAFES shoppette. Despite the renovations, the building is undersized and unsuitable to adequately support current sales levels. In addition, the Auto Pride gasoline station currently has only four gasoline dispensers. During peak traffic periods (paydays and weekends), vehicles are forced to queue in the parking lot and adjacent street. Severe congestion often deters patrons from using the gasoline station and its other services. Building 1112 is programmed to be demolished in order to provide space for the construction of a proposed new shoppette design, an automated car wash facility, a restaurant establishment with drive up window service, increase services of the Auto Pride station to 12 gasoline dispensers, and eight bays of the car care center.

1.2 LOCATION OF THE PROPOSED ACTION

The proposed action would take place at MAFB in Montgomery, Alabama. The site for the proposed construction is in the south central portion of the installation within the Community-Commercial land use zone. The proposed site is located at the existing Day Street shoppette, Building 1112. It is bounded to the north by West Selfridge Street, to the east by Air Base Boulevard, to the west by the existing shoppette parking lot and the boat and RV storage lot, and to the south by U.S. Highway 31 overpass and railroad tracks. Access to the site from off-base is through the Day Street Gate to West Selfridge Street.

1.3 DECISION TO BE MADE AND THE DECISION MAKER

The decision to be made with respect to the proposed action is whether a new AAFES shoppette will be constructed at MAFB. The purpose of this environmental assessment (EA) is to evaluate the potential impacts upon the natural and man-made environment, should the proposed action be implemented.

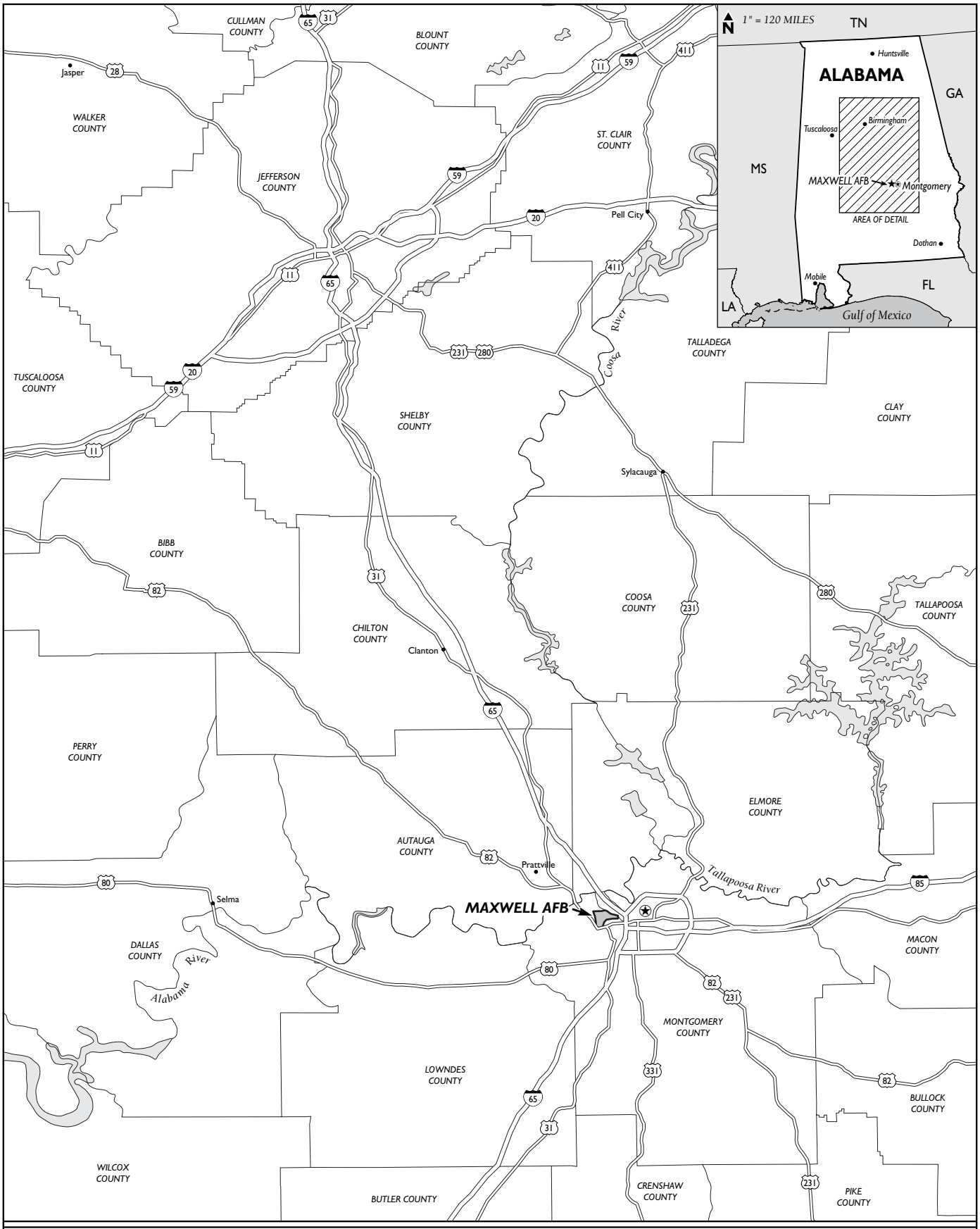

Figure 1-1
Maxwell Air Force Base, Alabama

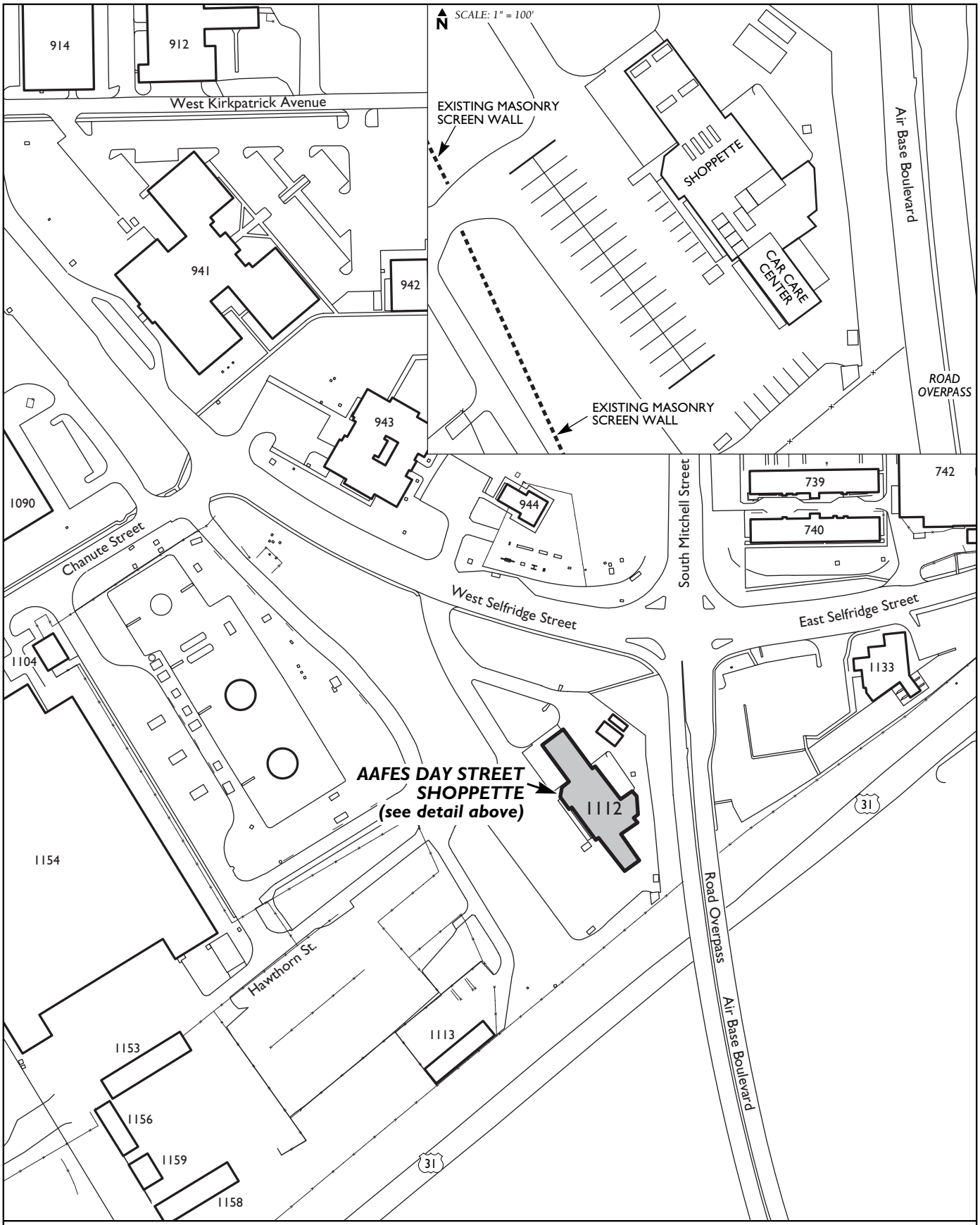

Figure 1-2
Existing AAFES Day Street Shoppette Location

The decision to approve the proposed action begins at MAFB with the Wing Commander. Should the Wing Commander approve the action, it is then reviewed and approved or disapproved by Headquarters AETC.

1.4 SCOPE OF THE ENVIRONMENTAL REVIEW

The intent of this EA is to identify potential impacts associated with the proposed action and alternatives to the proposed action, including the No-Action Alternative. In doing so, this EA will evaluate the following resource categories:

- Air Quality
- Noise
- Land Use
- Geologic Resources
- Water Resources
- Biological Resources
- Transportation and Circulation
- Cultural Resources
- Socioeconomics
- Environmental Justice and Protection of Children
- Hazardous Materials and Waste
- Utilities

This EA will also address cumulative impacts, and the compatibility of the proposed action and alternatives with the objectives of federal, regional, state, and local land use plans, policies, and controls. The relationship between the short-term use of the environment and its long-term productivity, as well as an assessment of any irreversible and irretrievable commitments of resources associated with the alternative, will also be evaluated.

1.5 APPLICABLE REGULATORY REQUIREMENTS

The Environmental Impact Analysis Process (EIAP) is the process by which Federal agencies facilitate compliance with environmental regulations. The primary legislation affecting these agencies' decision-making process is the National Environmental Policy Act (NEPA) of 1969. This act and other facets of the EIAP are described below.

1.5.1 National Environmental Policy Act

This act requires that Federal agencies consider potential environmental consequences of proposed actions in their decision-making process. The intent of NEPA is to protect, restore, or enhance the environment through well-informed Federal decisions. The Council on Environmental Quality (CEQ) was established under NEPA for the purpose of implementing and overseeing Federal policies as they relate to this process. In 1978, the CEQ issued *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 Code

of Federal Regulations [CFR] §1500-1508). These regulations specify that an EA be prepared to:

- briefly provide sufficient analysis and evidence for determining whether to prepare an environmental impact statement (EIS) or a Finding of No Significant Impact (FONSI);
- aid in an agency's compliance with NEPA when an EIS is deemed unnecessary; and
- facilitate EIS preparation when one is necessary.

Further, to comply with other relevant environmental requirements and to assess potential environmental impacts, the EIAP and the decision-making process involve a thorough examination of all environmental issues pertinent to the proposed action.

1.5.2 Interagency and Intergovernmental Coordination for Environmental Planning

NEPA and CEQ regulations require intergovernmental notifications prior to making any statement of potential environmental impacts. Through the process of Interagency and Intergovernmental Coordination for Environmental Planning (IICEP), the USAF, in coordination with AAFES, notifies relevant federal, state, and local agencies and allows them to make known their environmental concerns specific to the proposed action. Comments from these entities are addressed and incorporated into the environmental impact analysis process.

1.6 ORGANIZATION OF THE DOCUMENT

The purpose of this EA is to evaluate any potential impacts associated with the proposed action and the alternatives to the proposed action, including the No-Action Alternative. Section 2 of this document provides a description of the proposed action and alternatives. Section 3 provides a baseline assessment of specific resource areas within the affected environment. These resource areas include specific elements of both the natural and man-made environment. Finally, Section 4 evaluates the potential impacts of both the proposed action and the alternatives on the resource areas described in Section 3.

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2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

Section 2 describes the proposed action and alternatives to the proposed action, including the No-Action Alternative. This section discusses the history of the formulation of alternatives, including those eliminated from further consideration. The proposed action and all other alternatives are described in detail, and a comparison matrix is provided that summarizes the effects of all alternatives. Finally, the preferred alternative is identified.

In general, the proposed action involves constructing a new 17,762 SF shoppette to replace the current shoppette at Building 1112 at MAFB, Alabama. The new shoppette would contain retail, administrative, stockroom space, restaurant with drive-up window service, 12 multi-product fuel dispensers with canopy, separate building with automated carwash, eight work bay car care center, and 98 parking spaces for customers and employees.

2.2 HISTORY OF THE FORMULATION OF ALTERNATIVES

Following the programming of Building 1112 for demolition by the U.S. Department of the Air Force (USAF), MAFB and AAFES began evaluating options for expansion of the existing shoppette. Although, the existing shoppette was originally slated for renovation and expansion, further investigation revealed demolition and reconstruction as the preferred option. The need to rectify the functional inadequacies within the existing shoppette (Building 1112) and the associated gas sales area led decision makers to evaluate opportunities to expand the operational footprint of the shoppette functions and the gasoline service station at MAFB.

2.3 IDENTIFICATION OF ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Decision makers from AAFES and MAFB evaluated the feasibility of expanding and renovating the existing shoppette at MAFB. However, this alternative was eliminated from further consideration in this EA due to cost concerns. Moreover, the current shoppette design could not accommodate the proposed expansion or could be easily developed to adequately support such an establishment. As a result, this alternative is not considered feasible and has been eliminated from further analysis. Therefore, only the proposed action and the No-Action Alternative are carried forward for detailed analysis in this EA.

2.4 DETAILED DESCRIPTION OF THE PROPOSED ACTION

The proposed action is to construct a new 17,762 SF AAFES shoppette at MAFB, Alabama to replace the existing 8,345 SF shoppette (Building 1112), which is undersized, outdated, and no longer capable of providing adequate services to personnel and dependents associated with MAFB (Figure 2-1). The new shoppette would also accommodate a 2,172 SF restaurant with drive-up window service, an automated carwash facility, 12 multi-purpose fuel dispensers, and an eight bay car care center.

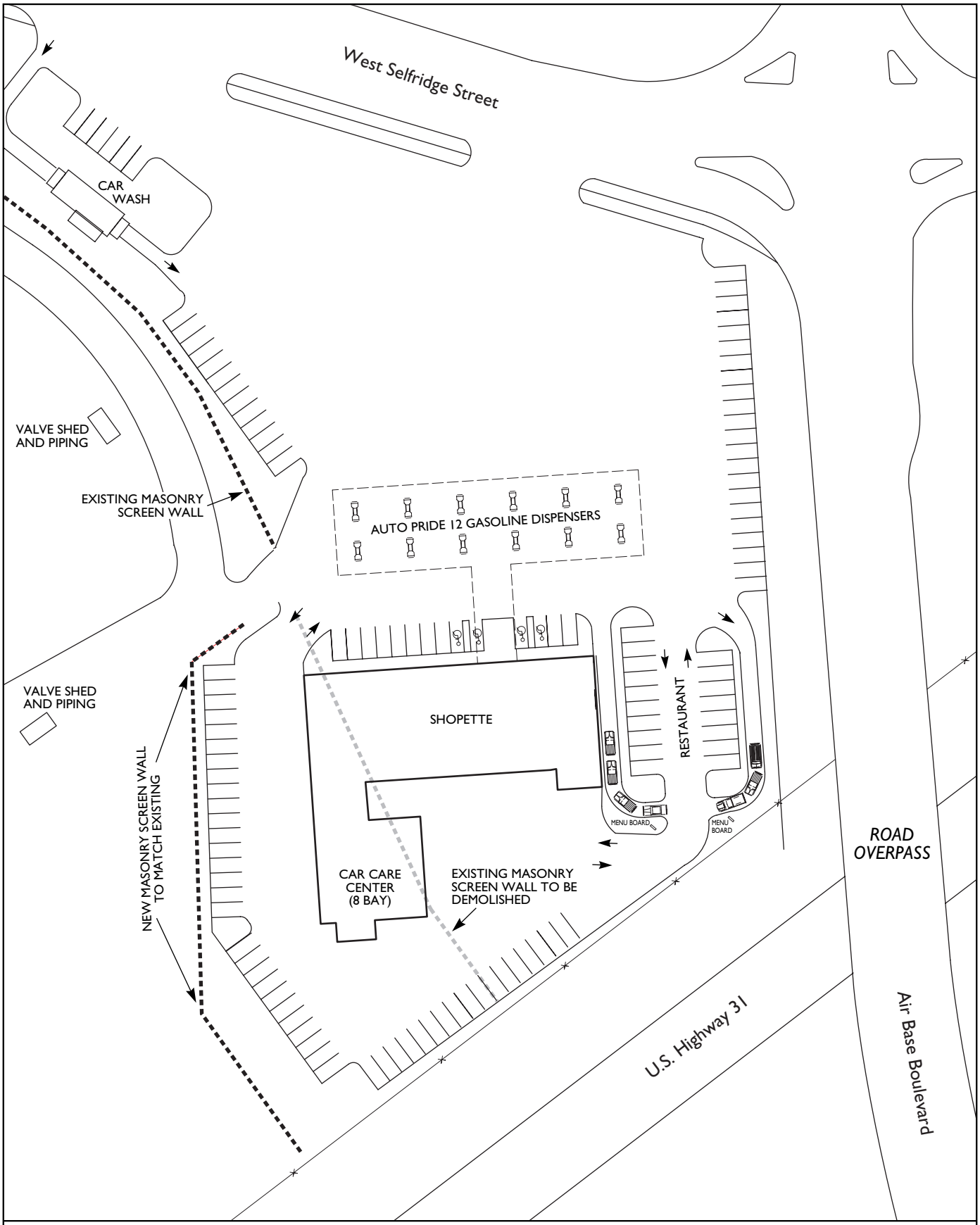

Figure 2-1
Detailed Site Plan of the Proposed Action

The restaurant would either be operated by AAFES as a franchise or would be owned by AAFES. The three existing 10,000-gallon underground storage tanks (USTs) containing three grades of gasoline would serve 12 pump stations under a canopy on the north east side of the building. A drive-through service lane for the restaurant would be constructed at the south east side of the building. Approximately 98 parking spaces and site access roads encompassing approximately 127,000 SF of pavement would surround the building. The proposed action would require a total site area of approximately four acres. The proposed site is located at the existing Day Street shoppette, Building 1112 (Figure 2-2). It is bounded to the north by West Selfridge Street, to the east by Air Base Boulevard, to the west by the existing shoppette parking lot and the boat and RV storage lot, and to the south by U.S. Highway 31 overpass and the railroad tracks. Access to the new shoppette from off-base would be through the Day Street Gate to West Selfridge Street (Figure 2-1). On-base access to the new shoppette would also be from West Selfridge Street.

Figure 2-2 Photograph of Proposed Site for New AAFES Shoppette (view southeast towards Day Street gate)

Under the proposed action, the shoppette and supporting functions would increase their current levels of employment. The overall employment would increase by 12 employees for a total of

37 employees at the shoppette (including car care center, carwash, gasoline station, and restaurant). Current total annual salary and benefits associated with the existing shoppette total $706,000. Under the proposed action, the estimated total annual salary and benefits in Fiscal Year (FY) 2004 associated with the shoppette and associated facilities would be approximately $1,044,880. Annual sales are expected to increase once the new shoppette and supporting functions are opened. Annual sales for the existing shoppette (including car care center and fuel station) average $600,000. Annual projected sales in FY 2004, after implementation of the proposed action, are estimated to be $1,000,000.

From an operations standpoint, the proposed action would continue to generate small quantities of hazardous waste associated with the car care center. The used oil UST and the oil water separator (OWS) would continue to be pumped and cleaned out by the U.S. Environmental Protection Agency (USEPA) every 3 to 4 months or as needed.

2.5 DESCRIPTION OF THE NO-ACTION ALTERNATIVE

The No-Action Alternative would maintain the status quo at MAFB. The existing shoppette and Auto Pride gasoline sales would continue to operate as they do currently. The existing site identified on Figure 1-2 would remain unchanged. Personnel and dependents associated with the installation would continue to use the existing shoppette and Auto Pride gasoline station, which are undersized, outdated, and poorly configured. Over the long-term, use of these existing facilities would result in overall customer dissatisfaction and low morale, ultimately degrading the ability of AAFES to provide high quality facilities and services to military members and their dependents.

2.6 COMPARISON MATRIX OF ENVIRONMENTAL EFFECTS OF PROPOSED ACTION AND NO-ACTION ALTERNATIVE

Table 2-1 presents a comparison of the potential environmental effects, including cumulative effects, resulting from implementation of the proposed action or the No-Action Alternative. The environmental effects are described in Section 4. As shown in Table 2-1, the proposed action and the No-Action Alternative would have no appreciable effects on these resources.

Table 2-1 Comparison of Potential Environmental Consequences

Resource Area	*Proposed Action*	*No-Action*
Air Quality	○	○
Noise	○	○
Land Use	○	○
Geologic Resources	○	○
Water Resources	○	○
Biological Resources	○	○
Transportation/Circulation	+	◑
Cultural Resources	○	○
Socioeconomics	○	○
Environmental Justice	○	○
Hazardous Materials and Wastes	○	○
Utilities	○	○

Notes: ○ = No significant impact
◑ = Adverse, but not significant impact
● = Significant impact
+ = Beneficial impact

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3 AFFECTED ENVIRONMENT

This section describes relevant existing environmental conditions for resources potentially affected by the proposed action and No-Action Alternative described in Section 2. This description of the environment that may be affected provides a framework for understanding the potential direct, indirect, and cumulative effects of the proposed action and the No-Action alternative.

As directed by guidelines contained in NEPA, CEQ regulations, and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process*, the description of the affected environment focuses only on those resource areas potentially subject to impacts and should be commensurate with the anticipated level of environmental impact.

This EA analyzes potential environmental effects for the following resource areas: air quality, noise, land use, geological resources, water resources, biological resources, transportation and circulation, cultural resources, socioeconomics, environmental justice and protection of children, hazardous materials and wastes, and utilities. The following subsections contain definitions of each resource, a description of the associated region of influence (ROI) for each resource, and existing conditions for each resource within the associated ROI.

3.1 AIR QUALITY

3.1.1 Definition of Resource

Air quality is defined as the ambient air concentrations of specific criteria pollutants determined by the USEPA to be of concern to the health and welfare of the general public. These criteria pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM_{10}), and lead (Pb). To establish limits on pollutant concentrations, the USEPA has created National Ambient Air Quality Standards (NAAQS) to identify the maximum allowable concentrations of criteria pollutants that are considered safe, with an additional adequate margin of safety, to protect human health and welfare (Table 3-1). Depending on the type of pollutant, these maximum concentrations may not be exceeded at any time, or may not be exceeded more than once per year (USEPA 2002a).

3.1.1.1 Criteria Pollutants

Criteria pollutants affecting air quality in a given region can be characterized as being either stationary or mobile sources. Stationary sources of emissions, also known as point sources, are typified by emissions from smokestacks. Mobile sources of emissions, also termed non-point sources, would include emissions from cars and airplanes. Air quality within a region is a function of the type and amount of pollutants emitted, size and topography of the air basin, and prevailing meteorological conditions.

Table 3-1 National Ambient Air Quality Standards

POLLUTANT	AVERAGING TIME	NAAQS	
		Primary	Secondary
Ozone (O_3)	8 Hour(1)	0.08 ppm (157 µg/m^3)	Same as Primary Standards
	1 Hour	0.12 ppm (235 µg/m^3)	
Carbon Monoxide (CO)	8 Hour	9 ppm (10 mg/m^3)	Same as Primary Standards
	1 Hour	35 ppm (40 mg/m^3)	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.053 ppm (100 µg/m^3)	Same as Primary Standards
Sulfur Dioxide (SO_2)	Annual Average	0.03 ppm (80 µg/m^3)	—
	24 Hour	0.14 ppm (365 µg/m^3)	—
	3 Hour	—	0.50 ppm (1,300 µg/m^3)
Suspended Particulate Matter Less than 10 Microns in Diameter (PM_{10})	Annual Arithmetic Mean	50 µg/m^3	Same as Primary Standards
	24 Hour	150 µg/m^3	
Suspended Particulate Matter Less than 2.5 Microns in Diameter ($PM_{2.5}$)(1)	Annual Arithmetic Mean	15 µg/m^3	Same as Primary Standards
	24 Hour	65 µg/m^3	
Lead (Pb)	Calendar Quarter	1.5 µg/m^3	Same as Primary Standards

ppm – parts per million
µg/m^3 – micrograms per cubic meter
mg/m^3 – milligrams per cubic meter

(1) The O_3 8-hour standard and the $PM_{2.5}$ standards are included for informational purposes only. In 1999, a federal court ruling blocked implementation of these standards, which USEPA proposed in 1997. The USEPA has asked the U.S. Supreme Court to reconsider that decision.

Source: USEPA 2001a.

Ozone (O_3)

The majority of ground-level O_3 (smog) is formed as a result of complex photochemical reactions in the atmosphere between volatile organic compounds (VOCs), nitrogen oxides (NO_x), and oxygen. VOCs and NO_x are considered to be precursors to the formation of O_3, which is a highly reactive gas that can damage lung tissue and affect respiratory function. While O_3 in the lower atmosphere is considered to be a damaging air pollutant, O_3 in the upper atmosphere is beneficial, as it protects the earth from harmful ultraviolet radiation. However, atmospheric processes preclude ground-level O_3 from reaching the upper atmosphere (USEPA 1999).

Carbon Monoxide (CO)

CO is a colorless, odorless, poisonous gas produced by the incomplete combustion of fossil fuels. Elevated levels of CO can result in harmful health effects, especially for the young and elderly, and can also contribute to global warming (USEPA 1999).

Nitrogen Dioxide (NO_2)

NO_2 is a brownish, highly reactive gas produced primarily as a result of the burning of fossil fuels. NO_2 can also lead to the formation of O_3 in the lower atmosphere. NO_2 can cause respiratory ailments, especially in the young and elderly, and can lead to degradations in the health of aquatic and terrestrial ecosystems (USEPA 1999).

Sulfur Dioxide (SO_2)

SO_2 is produced primarily from the combustion of coal and oil by steel mills, pulp and paper mills, and from non-ferrous smelters. High concentrations of SO_2 can aggravate existing respiratory and cardiovascular diseases in asthmatics and others that suffer from emphysema or bronchitis. SO_2 also contributes to acid rain, which can in turn lead to the acidification of lakes and streams (USEPA 1999).

Particulate Matter (PM_{10})

PM_{10} is typically composed of dust, ash, soot, smoke, or liquid droplets emitted into the air. Fires, use of unpaved roads, construction activities, and natural sources (wind and volcanic eruptions) can contribute to increased PM_{10} concentrations. PM_{10} particles can be inhaled into the respiratory system, leading to the possible aggravation of existing lung diseases (USEPA 1999).

Lead (Pb)

Sources of lead include pipes, fuel, and paint, though the use of lead in these materials has declined dramatically in recent years. Lead can be inhaled directly or ingested indirectly by consuming lead-contaminated food, water, or dust. Fetuses and children are most susceptible to lead poisoning, which can result in heart disease and nervous system damage (USEPA 1999).

3.1.1.2 Clean Air Act Amendments

Through the Clean Air Act (CAA) Amendments of 1990, the USEPA has required each state to prepare a State Implementation Plan (SIP), which describes how each state will achieve compliance with the NAAQS. The SIP is a compilation of goals, strategies, schedules, and enforcement actions that will help lead a state into compliance with the NAAQS. Alabama has adopted the NAAQS. Areas not in compliance with the NAAQS can be declared nonattainment areas by the USEPA, or the appropriate state or local agency. Areas in compliance with the NAAQS are defined as being in attainment. Where insufficient air quality monitoring data exist to determine attainment status for an area, the region is designated as unclassified.

The criteria for nonattainment status varies by pollutant: 1) an area is in nonattainment for O_3 if the NAAQS have been exceeded more than three discontinuous times in 3 years; and 2) an area is in nonattainment for any other pollutant if the NAAQS have been exceeded more than once per year.

The CAA established certain statutory requirements for federal agencies with proposed federal activities to demonstrate conformity of the proposed activities with the SIP for attainment of the NAAQS. Under these rules, certain actions are exempt from conformity determinations, while others are presumed to be in conformity if total project emissions are below *de minimis* levels established under 40 CFR 93.153. *De minimis* levels (in tons per year) vary from pollutant to pollutant and are also subject to the severity of the nonattainment status.

3.1.2 Existing Conditions

3.1.2.1 Climate

MAFB is situated in a humid subtropical climate regime. The average annual high temperature is approximately 75 degrees Fahrenheit (°F), ranging between an average summer high of 91 °F and an average winter high of 60 °F. Winters in the region are temperate, with subfreezing temperatures and snow rarely occurring. The MAFB area (Montgomery) averages approximately 53 inches of rain a year, with the majority of rain falling in the late winter and spring months. Winds average approximately 6 miles per hour, typically from the east or west, depending upon the time of year.

3.1.2.2 Regional Setting

MAFB is located in Montgomery County, Alabama, within Air Quality Control Region (AQCR) 58 (The Columbus [GA] - Phenix City [AL] Interstate AQCR). All of Montgomery County is in attainment or unclassified for all of the NAAQS (USEPA 2002b). No Prevention of Significant Deterioration (PSD) Class I areas are located within the vicinity of MAFB (USEPA 2002c).

3.1.2.3 Air Emissions Inventory

The 2001 Air Emissions Inventory categorizes emissions from all stationary sources at MAFB (Table 3-2). Primary stationary sources include emissions from boilers, furnaces, and small hot water heaters used for heating purposes and power production. MAFB is considered a minor source of emissions and are therefore not required to obtain a synthetic minor operating permit or a CAA Title V major source operating permit (Alabama Department of Environmental Management [ADEM] 2003).

Table 3-2 2001 Actual Stationary Emissions at MAFB (tons/year)

CO	VOCs	NO_x	SO_2	PM_{10}	Total HAPs
18.08	40.16	26.08	0.39	2.10	7.15

Source: MAFB 2002a.
Note: HAPs = Hazardous Air Pollutants

3.2 NOISE

3.2.1 Definition of Resource

Noise can be defined as any sound that interferes with communication, is intense enough to damage hearing, or is otherwise annoying (Federal Interagency Committee on Noise [FICON] 1992). Human response to noise varies according to the type and characteristics of the noise source, distance between the source and the receptor, sensitivity of the receptor, and time of day.

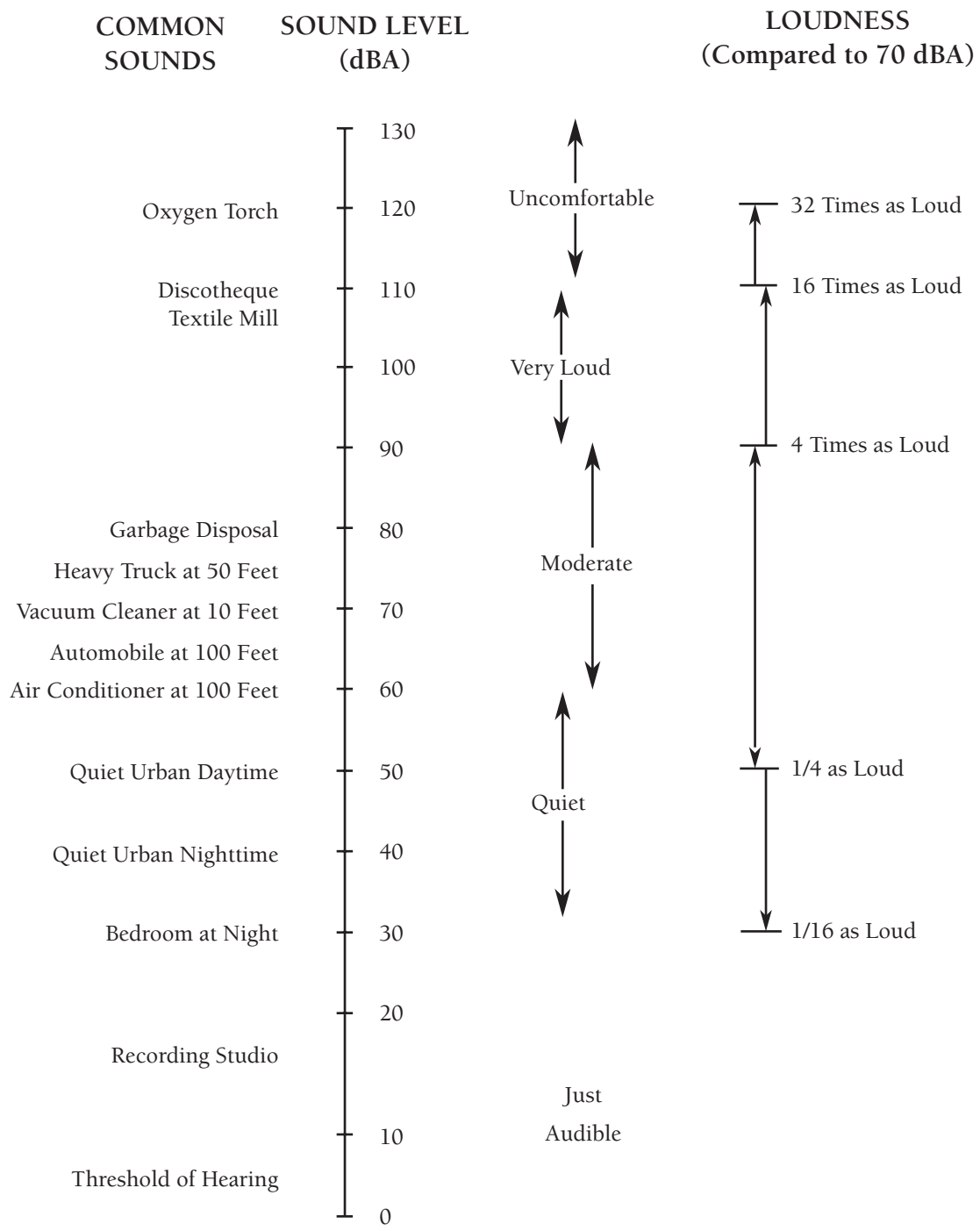
The physical characteristics of sound include its level, frequency, and duration. Sound is commonly measured with instruments that record instantaneous sound levels in decibels (dB), which are based on a logarithmic scale (e.g., a 10 dB increase corresponds to a 100 percent increase in perceived sound). Under most conditions, a change of 5 dB is required for humans to perceive a change in the noise environment (USEPA 1973).

Sound measurements are often weighted to emphasize those frequencies heard especially well by the human ear. While the range of frequencies across which humans hear extends from 20 to 20,000 Hertz, the human ear is most sensitive to sounds in range of 1,000 and 8,000 Hertz, with sensitivity diminishing at lower and higher frequencies. As a result, A-weighted sound level measurements (dBA), which de-emphasize the high and low frequencies and emphasize the middle frequencies, are used to characterize sound levels that are heard especially well by the human ear. As seen in Figure 3-1, human hearing ranges from approximately 20 dBA (the threshold of hearing) to 120 dBA (the threshold of pain).

The sound exposure level (SEL) is a measure of the physical energy associated with a noise event that incorporates both the intensity and duration of the event. For example, the SEL associated with an aircraft overflight would be comprised of noise levels for the period of time when the aircraft is approaching (noise levels are increasing), the instant when the aircraft is directly overhead (noise levels are at a maximum), and the period of time when the aircraft is departing (noise levels are decreasing). As the SEL also considers the duration of a noise event, SEL values are typically higher than the maximum noise level measured for most noise events.

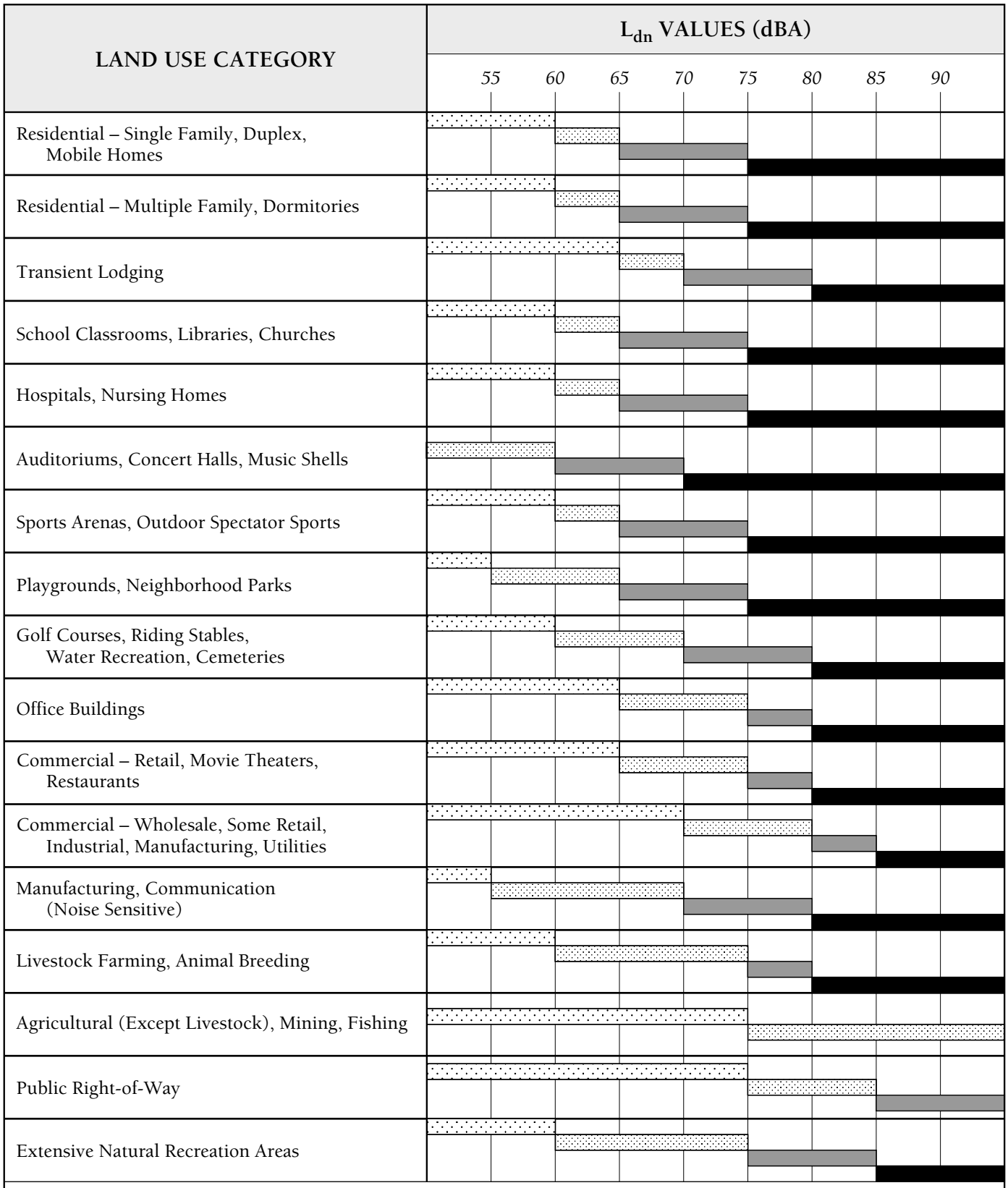
The day-night average sound level (L_{dn}) is the energy-averaged sound level of all SEL values within a 24-hour period, with a 10 dBA penalty assigned to noise events occurring between 10:00 P.M. and 7:00 A.M. to compensate for the annoyance associated with the occurrence of nighttime noise events. The L_{dn} is the preferred noise metric of the U.S. Department of Housing and Urban Development, U.S. Department of Transportation, Federal Aviation Administration, USEPA, and the Department of Defense (DoD).

Most people are exposed to sound levels of 50-55 dBA (L_{dn}) or higher on a daily basis. Studies conducted to determine noise impacts on various human activities have revealed that sound levels below 65 dBA (L_{dn}) do not significantly bother approximately 87 percent of the population (FICON 1992). Figure 3-2 provides the guidelines established by FICON that are commonly used to determine acceptable levels of noise exposure for various types of land use.



Source: Harris 1979.

Figure 3-1
Examples of Typical Sound Levels
in the Environment



Source: Federal Interagency Committee on Noise 1992.

Figure 3-2
Recommended Land Use for
L_{dn}-Based Noise Values

3.2.2 Existing Conditions

Noise sources at MAFB are primarily generated by aircraft operations, on- and off-base vehicle operations, and construction projects. Construction projects are considered short-term in their effects, and noise impacts are generally isolated to the site of the project and the immediate vicinity. MAFB has a 8,006-foot by 300-foot primary runway (15/33) and one 3,00-foot by 60-foot asphalt strip. The primary assigned aircraft include nine C-130's and four C-21's.

The nearest noise-sensitive receptor to the site of the proposed action is the on-base military housing area approximately 700 feet northeast of the proposed project site.

3.3 LAND USE

3.3.1 Definition of Resource

Land use comprises the natural conditions and/or human-modified activities occurring at a particular location. Human-modified land use categories include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed use areas. Management plans and zoning regulations determine the type and extent of land use allowable in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

3.3.2 Existing Conditions

3.3.2.1 Regional and Local Land Use

MAFB is located in Montgomery County, Alabama, south of the foothills of the Appalachian Mountains. It is located in the northwest section of the City of Montgomery, approximately one quarter mile west of the downtown area. MAFB is bordered on the east and south by the City of Montgomery and on the northeast by the Alabama River. A public housing project and the central business district of Montgomery are located east of the installation. To the south and west of MAFB, the land uses are mixed residential and industrial. Land to the west of MAFB includes some development, agricultural areas, and floodplain areas. The urban development of the City of Montgomery includes a mix of residential, industrial, and strip commercial uses.

3.3.2.2 Installation Land Use

MAFB consists of approximately 2,475 acres of land, all of which are improved or developed in some manner. Occupied building, structures, pavements, and landscaped residences make up approximately 700 acres, and the runways, taxiways, and adjacent infield areas account for approximately 880 acres (MAFB 2000a). Two golf courses, playgrounds, picnic areas and other recreational developments, and several ponds occupy the remaining land. Figure 3-3 shows the existing land use at MAFB.

The installation also owns a 28-acre housing area located one-mile south of the base, and Gunter Annex, a 372-acre annexed installation. The Maxwell Housing Annex contains 124 buildings consisting of 174 family housing units, and MAFB-Gunter Annex contains 218 buildings consisting of 2.2 million square feet.

Land Use Categories

Land use at MAFB can be divided into 15 categories, which are classified and defined below (Table 3-3).

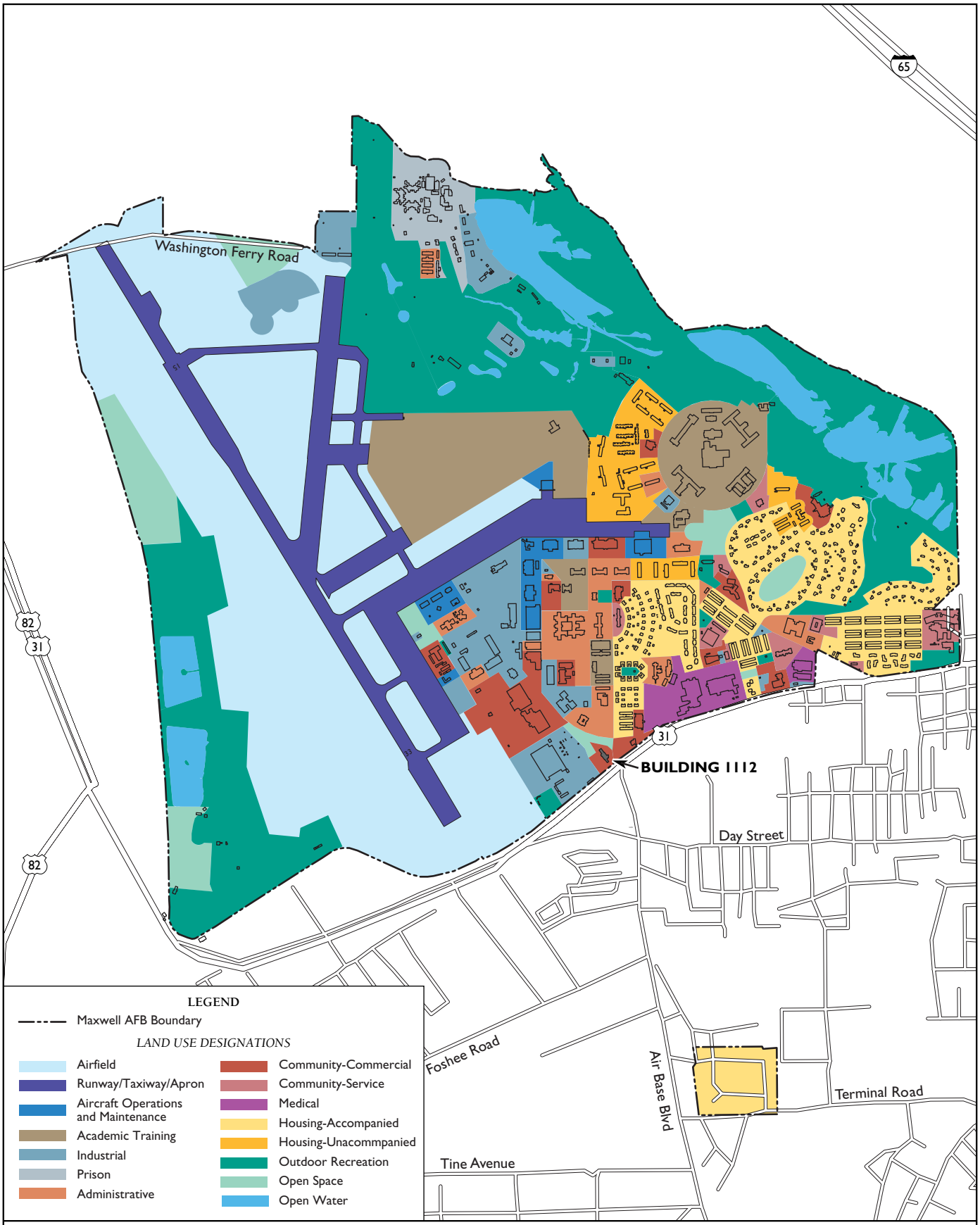


Figure 3-3
Land Use at Maxwell AFB, AL

Table 3-3 MAFB Land Use Categories

No.	Land Use Category	Description of Land Use Category
1.	*Airfield*	Airfield criteria open space and unused land.
2.	*Airfield*	Aprons, runways, and taxiways.
3.	*Aircraft Operations and Maintenance*	Aircraft shops and air operations training.
4.	*Industrial*	Petroleum, Oils, and Lubricants (POL), warehousing, Civil Engineering.
5.	*Administrative*	Non-aircraft or operations buildings.
6.	*Academic*	Facilities and structures used to support academic activities.
7.	*Community Commercial*	Retail, service clubs, and commissary.
8.	*Community Service*	Services Squadron, chapel, and library.
9.	*Medical*	Hospital and medical storage.
10.	*Accompanied Housing*	Military family housing.
11.	*Unaccompanied Housing*	Dormitories and transient quarters.
12.	*Recreational*	Golf course and sports fields.
13.	*Open Space*	Non-dedicated lands.
14.	*Water*	Rivers, lakes streams, and ponds.
15.	*Prison*	Land and facilities dedicated to the on-base Federal prison camp.

Source: MAFB 2000a.

Land Use and the Noise Environment

Land use activities most sensitive to ambient noise are residential, public services, commercial, cultural, and recreational. Noise generated from aircraft and roadway traffic represents the greatest contribution to the overall noise environment at MAFB. Construction activities can also result in disruption to noise-sensitive receptors and land use areas (e.g., outdoor recreation participants or administrative personnel); however, construction activities tend to be temporary and associated noise can be reduced with special equipment and scheduling restrictions. The land immediately surrounding MAFB is not in conflict with the noise levels generated by installation activities.

3.4 GEOLOGICAL RESOURCES

3.4.1 Definition of Resource

Geological resources are defined as the geology, soils, and topography of a given area. The geology of an area includes bedrock materials, mineral deposits, and fossil remains. The principal geologic factors influencing stability of structures are soil stability and seismic properties. Soil, in general, refers to unconsolidated earthen materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability for the ground to support structures and facilities. Relative to development, soils typically are described in terms of their type, slope, physical characteristics, and relative compatibility or limitations with regard to particular construction activities and types of land use. Long-term geological, erosional, and depositional processes typically influence the topographic relief of an area. Topography incorporates the physiographic, or surface, features of an area and is usually described with respect to elevation, slope, aspect, and landforms.

3.4.2 Existing Conditions

3.4.2.1 Geological Resources

MAFB is located within the Alluvial Deltaic Plain of the upper Gulf Coastal Plain Physiographic region. Within the Coastal Plains Region of Montgomery County, the geologic units range in age from the Upper Cretaceous to the Holocene. This range is characterized by low rolling hills and shallow valleys. The topography of MAFB is generally level with elevations averaging 168 feet above mean sea level.

The regional surficial geology is dominated by Quaternary Terrace and Alluvial deposits consisting of coarse sands, gravels, silts, and clays deposited by the ancestral and current Alabama River. The thickness of the deposits generally range from 30 to 50 feet, but in some areas can be as thick as 80 feet. The thickness of the individual geologic units tends to follow a pattern that shows a gradual dip seaward at a shallow rate. Lithologic logs during drilling activities show that between the 10 and 30 foot depths, the deposits are composed of fine-to-medium grained silty sand with variable amounts of quartz pebbles and some clayey sand. At soil depths greater than 30 feet, the amount of quartz pebbles decreases and the deposits grade into mostly poorly graded sand with sand lenses (MAFB 2001a).

3.4.2.2 Soils

Six soil associations have been mapped at MAFB and are described below in Table 3-4. The majority of the base consists of the Amite-Cahabe association which are typically found on level to sloping uplands of high stream terraces. Soils range from very poor to well-drained and moderate to poor permeability. The Cahgabe-Wickham-Roanoke association is found along the north and west base boundaries typically found on level to gently sloping lowlands of floodplains and low stream terraces. Soils range from poor to well-drained and subsoils have a seasonally high water table.

The pH level in soils at MAFB average 5.2 pH. On average soils are found to be low in nitrogen, phosphate, potash, calcium, and magnesium.

Table 3-4 Soil Types Found at MAFB

No.	Land Use Category	Description of Land Use Category
1.	*Congaree silt loam (0-2 % slopes)*	Contains some mica throughout profile. At 0 to 6 inches soil includes a dark grayish-brown silt loam with moderate, medium, granular structure. At 6 to 20 inches soils are dark yellowish-brown silty clay loam; friable when moist and slightly plastic when wet, and highly acidic.
2.	*Terrance escarpments (15-25 % slopes)*	Generally found between two stream terraces or within floodplains. Sandy and gravelly, slightly developed, not fertile. Most of the area is moderately to severely eroded, and numerous shallow to deep gullies have formed.
3.	*Amite fine sandy loam (2-5 % slopes)*	At 0 to 5 inches soil is dark reddish-brown fine sandy loam, weak crumb structure, very friable when moist and loose when dry, moderately acidic. High runoff and erosion potential.
4.	*Roanoke silt loam (0-3 % slopes)*	Very small amount of very fine sand and some mica. At 0 to 10 inches the soils are gray silt loam streaked with dark-brown organic stains; weak, medium, granular structures; friable; and highly acidic. Contains moderate amount of organic matter and moderate permeability.
5.	*Wehadkee silt loam (0-2 % slopes)*	At 0 to 6 inches soil is dark-gray silt loam with few, fine, faint mottles of dark brown; weak, medium, granular structure; friable; and highly acidic. Contains moderately high natural fertility and moderately high water holding capacity.
6.	*Wickham fine sandy loam (0-2 % slopes)*	At 0 to 6 inches soil is dark brown fine sandy loam; weak, fine, crumb structure; very friable; highly acidic. At 6 to 20 inches soil is yellow-red to red fine sandy clay; weak to moderate, fine, sub-angular blocky structure; firm when moist, sticky when wet, and hard when dry; highly acidic. Slow permeability rate and moderately high capacity for holding moisture. Contains moderately small amount of organic matter and moderately low natural fertility.

Source: MAFB 2000a.

3.5 WATER RESOURCES

3.5.1 Definition of Resource

Water resources include both surface and subsurface water. Surface water includes all lakes, ponds, rivers, and streams within a defined area or watershed. Subsurface water, commonly referred to as groundwater, is typically found in certain areas known as aquifers. Aquifers are areas of mostly high porosity soil where water can be stored between soil particles and within soil pore spaces. Groundwater is typically recharged during precipitation events and is withdrawn for domestic, agricultural, and industrial purposes.

Due to dangers and damages associated with major flooding, legislation has been developed to limit construction within identified flood-prone zones. Specifically, development of areas within the identified 100-year floodplain zone (areas generally subject to major flooding once every 100 years) is typically limited to recreation and preservation activities. Flood hazards associated with the 100-year floodplain are also addressed in this section.

The Clean Water Act (CWA) of 1972 is the primary Federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters.

Water resources analyzed in this section include the surface and subsurface water resources at and surrounding MAFB. Wetlands are addressed in Section 3.6, Biological Resources.

3.5.2 Existing Conditions

3.5.2.1 Surface Water

MAFB is located on the western bank of the Alabama River. The surface drainage patterns on MAFB are generally from southwest to northeast towards the Alabama River. Prominent water features on the base include the lakes and drainage basins associated with the river flood plains, several small ponds on the golf course, and two small artificially constructed fishing lakes on the south side of the base (Figure 3-4).

Due to the predominance of impermeable surfaces located throughout MAFB, localized ponding occurs briefly during major rain events. A majority of this storm water runoff flows through the on-base drainage system and ponds prior to discharging to the Alabama River.

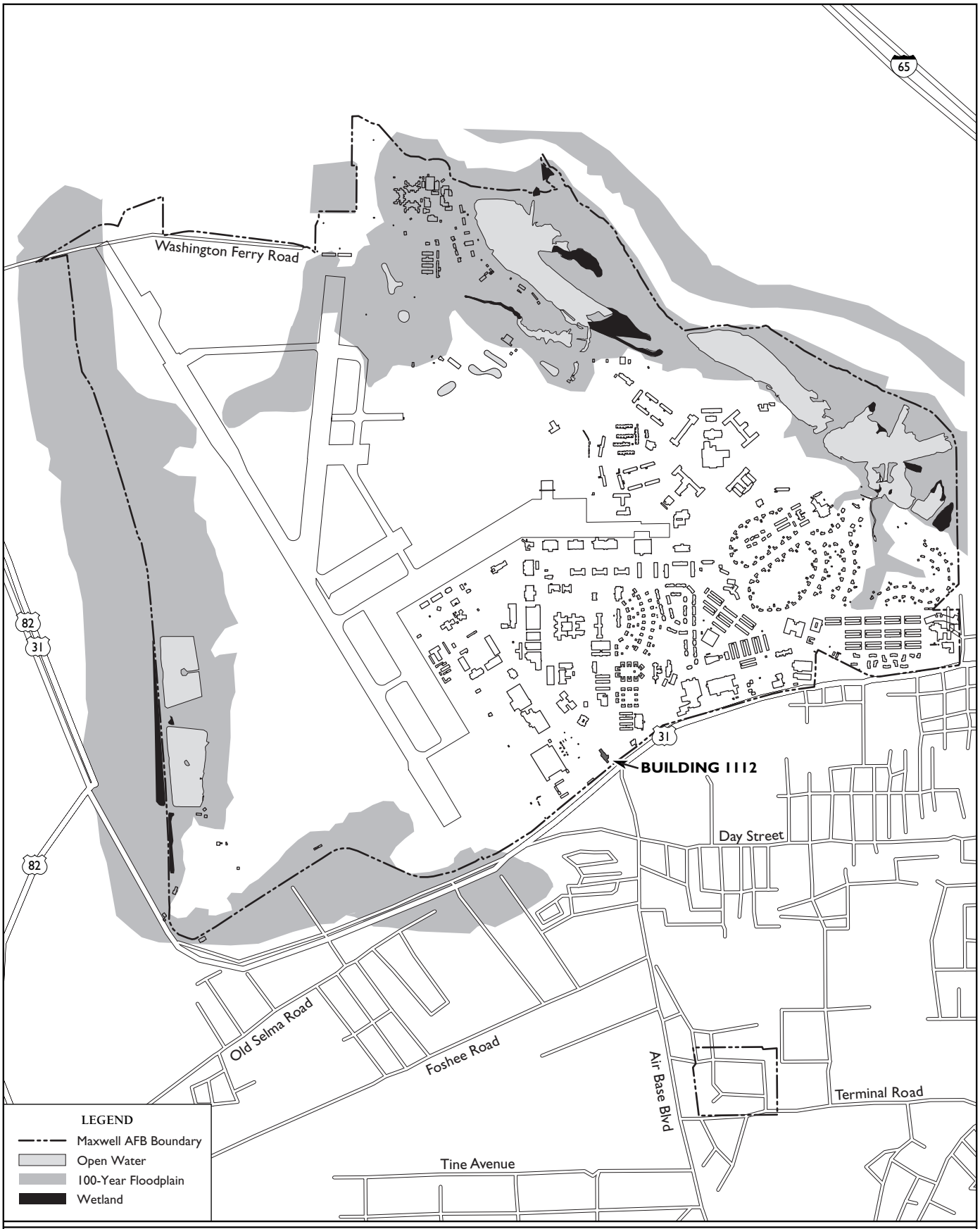


Figure 3-4
Surface Water Features at Maxwell AFB, AL

Floodplains

Approximately 30 percent of MAFB lies within an identified 100-year floodplain zone (MAFB 2000b). The floodplain elevation at MAFB is 161 to 162 feet above mean sea level (MAFB 2000b). The floodplain covers a large area in the northeast portion of the base along the Alabama River, and also extends along the south and west perimeters of the base (see Figure 3-4). The majority of the floodplain on-base is comprised of recreational land uses including a golf course.

3.5.2.2 Groundwater

The water table at MAFB ranges from depths of 4 to 40 feet below ground surface (bgs) (MAFB 2000b). The major aquifer in the region of MAFB is the Lower Eutaw which produces up to 450 gallons per minute. This aquifer is found at depths of 100 to 200 feet bgs. Groundwater at this aquifer is influenced by the Alabama River and is the source for recharging the wells that supply MAFB and the City of Montgomery with their potable water. MAFB has no production wells used for human consumption and receives its water supplies from the municipal water authority of Montgomery (MAFB 2000b).

3.6 BIOLOGICAL RESOURCES

3.6.1 Definition of Resource

Biological resources include living, native, or naturalized plant and animal species and the habitats within which they occur. Plant associations are referred to as vegetation and animal species are referred to as wildlife. Habitat can be defined as the resources and conditions present in an area that produces occupancy of a plant or animal (Hall et al. 1997). Although the existence and preservation of biological resources are intrinsically valuable, these resources also provide aesthetic, recreational, and socioeconomic values to society. This analysis focuses on species or vegetation types that are important to the function of the ecosystem, of special societal importance, or are protected under Federal or state law or statute. For purposes of this EA, these resources are divided into three major categories: vegetation; wetlands and sensitive habitats; and rare, threatened, and endangered species.

Vegetation includes all existing terrestrial plant communities with the exception of wetlands or threatened, endangered, or sensitive plant species. The affected environment for vegetation includes only those areas potentially subject to ground disturbance.

Wetlands are considered sensitive habitats and are subject to Federal regulatory authority under Section 404 of the CWA and Executive Order (EO) 11990, *Protection of Wetlands*. Jurisdictional wetlands are defined by the U.S. Army Corps of Engineers (USACE) as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USACE 1987). Areas meeting the Federal wetland definition are under the jurisdiction of the USACE. Wetlands generally include swamps, marshes, bogs, and similar areas. (33 CFR Part 328). Like vegetation, the affected environment for wetlands includes only those areas potentially subject to ground disturbance.

Rare, threatened, and endangered species are defined as those plant and animal species listed as rare, threatened, endangered, or proposed as such, by the USFWS. The Federal Endangered Species Act protects Federally listed threatened and endangered plant and animal species. Federal species of concern, formerly Category 2 candidate species, are not protected by law; however, these species could become listed and, therefore, protected at any time. Their consideration early in the planning process may avoid future conflicts that could otherwise occur.

3.6.2 Existing Conditions

3.6.2.1 Vegetation and Forestry

MAFB is situated within the Eutaw Belt subregion of the Central Pine Belt, or Southeastern Evergreen Forest. Vegetation in this area is bordered by the Oak-Pine Forest to the north. Due to previous agricultural uses and the urban development that has occurred at MAFB, virtually no original vegetation is present today. There are no natural wooded areas in existence at MAFB (MAFB 2000a). Maintained grassy areas and improved land dominate the installation's groundcover. MAFB has an extensive urban forest where mature canopy trees occur around the Officer's housing and central administrative buildings. Urban plantings such as shrubbery and shade trees include species such as crape myrtle *(Lagerstroemia indica)*, Bradford pear *(Pyrus calleryana)*, and southern magnolia *(Magnolia grandiflora)*. The dominant tree species at MAFB are listed in Table 3-5.

Table 3-5 Dominant Tree Species at MAFB

Common Name	Scientific Name
Slash pine	*Pinus elliotti*
Live oak	*Quercus virginiana*
Pecan	*Carya illinoensis*
Sweet gum	*Liquidambar styraciflua*
Pin oak	*Quercus palustris*

Source: MAFB 2000b.

3.6.2.2 Rare, Threatened, and Endangered Species

According to the Natural Heritage Section Database, no Federally-listed endangered, threatened, or proposed species, or their designated Critical Habitats occur at or in the vicinity of the proposed action (Alabama Department of Conservation and Natural Resources [ADCNR] 2002). The Natural Heritage Section database indicated that no biological survey has been performed at the delineated location by their staff or any individual referenced in the database. With respect to state-listed sensitive species, the ADCNR concludes that the closest sensitive species to the proposed action occur 8.3 miles from the proposed project site (ADCNR 2002).

During the 1993-1994 threatened and endangered species surveys at MAFB no species of rare plants were identified. The only listed species observed on base during the surveys included the box turtle, black-knobbed sawback, and loggerhead shrike (MAFB 2000b). Table 3-6 lists the special status species potentially occurring at MAFB.

Table 3-6 Special-Status Species Potentially Occurring at MAFB

Common Name	*Scientific Name*	*Status*[1] *Federal*	*State*
Plants			
Harper's Heartleaf	*Hexastylis speciosa*	3C	E
Wheery Phlox	*Phlox pulchra*	3C	E
Alabama Sweet Pitcher Plant	*Sarracenia alabamensis*	E	E
Needle Palm	*Rhapidophyllum hystrix*	3C	T
Spreading Pogonia	*Cleistes divaricata*	NL	T
Long-Headed Coneflower	*Ratibida columnifera*	NL	SC
Wherry's Catchfly	*Silene wherryi*	SC	NL
Arkansas Oak	*Quercus arkansana*	3C	SC
Bur Oak	*Quercus macrocarpa*	NL	SC
Carolina Anemone	*Anemone caroliniana*	NL	SC
Prairie Willow	*Salix humilis*	NL	SC
Price's Potato Bean	*Apios priceana*	T	NL
Pondberry	*Linera melissaefolia*	E	X
Lyrate Bladderpod	*Lesquerella lyrata*	T	E
Birds			
Wood Stork	*Mycteria americana*	E	E
Osprey	*Pandion haliaetus*	NL	SC
Common Ground Dove	*Columbina passerina*	NL	SC
Fish			
Crystal Darter	*Ammocrypta asprella*	C2	SC
Reptiles			
Southern Hognose Snake	*Heterodon simus*	C2	SC
Florida Pine Snake	*Pituophis melanoleucus mugitus*	C2	T
Northern Pine Snake	*Pituophis melanoleucus m.*	C2	PK
Eastern Coachwhip	*Masticophis flagelum f.*	NL	SC
Alligator Snapping Turtle	*Macroclemys temmincki*	C2	SC
Alabama Map Turtle	*Graptemys pulchra*	NL	SC
Small-Mouthed Salamander	*Ambystoma texanum*	NL	PK
Gulf Coast Mud Salamander	*Pseudotriton montanus flavissimus*	NL	PK
Box Turtle	*Terrapene Carolina ssp.*	NL	SC
Black-knobbed Sawback	*Graptemys nigrinoda*	3C	NL
Mammals			
Southeastern Pocket Gopher	*Geomys pinetis*	NL	SC
Southeastern Myotis	*Myotis austroriparius*	C2	NL
Rafinesque's Big-eared Bat	*Lanius ludovicianus migrans*	C2	NL

Notes: [1] C2 = Candidate, C3 = Formerly Listed, E = endangered, NL = not listed, PK = poorly known, SC = species of concern, T = threatened, X = extirpated

Source: MAFB 2000a.

3.6.2.3 Wetlands

In accordance with Air Force policy, installations are required to develop and maintain a current inventory of natural habitats as part of the Integrated Natural Resources Management Plan (INRMP). Wetlands are a significant natural habitat which should be included in this inventory. Alteration of wetlands is limited at military installations by EO 11990 and by the CWA.

MAFB is situated approximately 168 feet above mean sea level on primarily level terrain. According to the base wide jurisdictional wetland inventory conducted in April and June 1994, the installation contains 29 wetlands, 6 streams and drainages, and 13 lakes and ponds for a total

of 135.52 acres (Figure 3-4) (MAFB 2000a). Of that total, lakes and ponds make up 109.50 acres, streams and drainages make up 5.22 acres, and wetlands make up nearly 21 acres (MAFB 2000a). The probability of wetlands is greatest along the low northern floodplain boundary of the base. All of the impounded waters, streams, and wetlands are located along the western, northern, and eastern periphery of MAFB and all wetlands occur within the 100-year floodplain. All of the wetlands and most of the lakes and ponds are classified as Palustrine habitats, which includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, and emergent mosses or lichens (MAFB 2000a). There are no wetlands on or adjacent to the site of the proposed action.

3.7 TRANSPORTATION AND CIRCULATION

3.7.1 Definition of Resource

Transportation refers to the movement of vehicles on roadway networks. Primary roads, such as major interstates, are designed to move traffic and do not necessarily provide access to all adjacent areas. Secondary roads, commonly referred to as surface streets, are used to gain access to residential and commercial areas, hospitals, and schools. Roadway operating conditions are typically described in terms of average daily traffic (ADT) volumes.

3.7.2 Existing Conditions

3.7.2.1 Installation Circulation

MAFB is located approximately one quarter mile west of downtown Montgomery, Alabama. Access to the installation is from I-85 which runs into the main entrance at the Bell Street Gate. Direct access to the installation is possible through three gates which provide the primary circulation to the secondary and local routes of the installation. The primary east to west route is Maxwell Boulevard with the main entrance, Bell Street Gate. The primary north to south routes are Kelly Street (Kelly Street Gate), Mitchell Street (Day Street Gate), and LeMay Plaza and Poplar Street to Chennault Circle.

The secondary and local roadway system at MAFB provide access from the primary routes to various installation facilities. Parking is generally adequate throughout the base except near the schools of Academic Circle due to the increase in student populations.

The proposed project site is accessed via the Day Street gate and is located at the corner of Day Street and West Selfridge Street just past the Day Street gate. Traffic counts from November and December 2001 show that ADT counts at Bell Street (Main Gate) are approximately 2,020 per day while ADT counts for the Day Street and Kelly Street entrance gates are approximately 6,478 and 609 vehicles per day, respectively (MAFB 2002b).

Several changes to the existing transportation system have been proposed in the Maxwell Air Force Base General Plan. The most significant change proposed is the redesignation of the Day Street Gate as the main gate with a new Visitors Center. The Day Street Gate is currently the most heavily used entrance gate of the three.

3.8 CULTURAL RESOURCES

3.8.1 Definition of Resource

Cultural resources consist of prehistoric and historic districts, sites, structures, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. Cultural resources can be divided into three major categories: archaeological resources (prehistoric and historic), architectural resources, and traditional cultural resources.

Archaeological resources are locations where human activity measurably altered the earth or left deposits of physical remains (e.g., tools, arrowheads, or bottles). "Prehistoric" refers to resources that predate the advent of written records in a region. These resources can range from a scatter composed of a few artifacts to village sites and rock art. "Historic" refers to resources that postdate the advent of written records in a region. Archaeological resources can include campsites, roads, fences, trails, dumps, battlegrounds, mines, and a variety of other features.

Architectural resources include standing buildings, dams, canals, bridges, and other structures of historic or aesthetic significance. Architectural resources generally must be more than 50 years old to be considered for protection under existing cultural resource laws. However, more recent structures, such as Cold War era military buildings, may warrant protection if they have exceptional characteristics and the potential to be historically significant structures. Architectural resources must also possess integrity (i.e., its important historic features must be present and recognizable).

Traditional cultural resources can include archaeological resources, buildings, neighborhoods, prominent topographic features, habitats, plants, animals, and minerals that Native Americans or other groups consider essential for the continuance of traditional cultures.

Only significant cultural resources, known or unknown, warrant consideration with regard to adverse impacts resulting from a proposed action. To be considered significant, archaeological or architectural resources must meet one or more criteria as defined in 36 CFR 60.4 for inclusion in the National Register of Historic Places (NRHP).

Several Federal laws and regulations have been established to manage cultural resources, including the National Historic Preservation Act (1966), the Archaeological and Historic Preservation Act (1974), the American Indian Religious Freedom Act (1978), the Archaeological Resource Protection Act (1979), and the Native American Graves Protection and Repatriation Act (1990). In addition, coordination with Federally recognized Native American tribes must occur in accordance with EO 13084, *Consultation and Coordination with Indian Tribal Governments*.

On November 27, 1999, the DoD promulgated its Annotated American Indian and Alaska Native Policy, which emphasizes the importance of respecting and consulting with tribal governments

on a government-to-government basis. This Policy requires an assessment, through consultation, of the effect of proposed DoD actions that may have the potential to significantly affect protected tribal resource, tribal rights, and Indian lands before decisions are made by the respective services.

3.8.2 Existing Conditions

There are 152 buildings at MAFB listed on the NRHP, all of which were constructed during the inter war period of 1928 to 1939. In addition, one archaeological site was found eligible for listing on the NRHP during a 1997 archaeological survey. None of the sites listed or eligible for listing on the NRHP are located at or in the vicinity of the proposed project location.

A comprehensive Cultural Resources Management Plan (CRMP) has been prepared and provides focused guidance to land managers for compliance with the requisite cultural resource laws and regulations (MAFB 1999a). The CRMP recognizes that activities associated with the ongoing mission of MAFB have the potential to be destructive to historic properties. Therefore, the following activities require prior consultation with the MAFB Historic Preservation Office to ensure compliance with the CRMP and cultural resource protection laws and regulations:

- all new construction;
- ground-disturbing activities such as excavations or earthmoving for training facilities, roads, trails, landing strips, etc;
- any activities that affect properties that are eligible or potentially eligible for the NRHP; and
- the disposal of Federally owned lands.

3.9 SOCIOECONOMICS

3.9.1 Definition of Resource

Socioeconomics comprise the basic attributes of population and economic activity within a particular area or ROI and typically encompass population, employment and income, and industrial/commercial growth. Impacts on these fundamental socioeconomic resources can also influence other components such as housing availability and public services provision.

Socioeconomic data are presented for the City of Montgomery, Montgomery County, the State of Alabama, and the U.S. to analyze baseline socioeconomic conditions in the context of regional, state, and national trends.

3.9.2 Existing Conditions

3.9.2.1 Population

Regional

The Montgomery Metropolitan Statistical Area (MSA) (composed of Montgomery, Autauga, and Elmore Counties) population increased over 40,000 from 1990 to 2000 (Table 3-7). This 13.9 percent gain was the third highest among the state's MSAs. Growth was strongest in the two suburban counties: Autuaga's population increased 27.6 percent and Elmore's grew 33.9 percent. The population of Montgomery County gained 6.9 percent and the City of Montgomery experienced population growth of 7.7 percent. Both the city and county lagged behind the State of Alabama and the United States percent change over the last decade. The Montgomery MSA population is expected to increase over 100,000 to 433,292 between 2000 and 2025 (University of Alabama 2002).

Table 3-7 Population for the United States, State of Alabama, Montgomery County, and City of Montgomery, 1990-2000

Year	United States Population	Alabama Population	Montgomery County Population	City of Montgomery Population
1990	248,709,873	4,040,587	209,085	187,106
2000	281,421,906	4,447,100	223,510	201,568
% Change '90-'00	**13.2**	**10.1**	**6.9**	**7.7**

Source: U.S. Bureau of the Census (USBC) 2002a, 2002b, 2002c, 2002d.

MAFB

The current employee personnel levels associated with MAFB total 13,700. This total is composed of 8,000 employees, 2,000 non-appropriated fund base, exchange, and contractor employees, and 3,700 indirect employees in the Montgomery MSA (MAFB 2000b).

3.9.2.2 Regional Job Growth and Unemployment

The service-producing sectors accounted for more than 83 percent of jobs in the Montgomery area in 2001, the highest rate among the state's MSAs. The City of Montgomery maintains a diverse manufacturing base, including: food/kindred products; transportation equipment; textile/apparel; machinery/equipment; printing/publishing; furniture/fixtures; software engineering; and plastics. The Montgomery area is a major distribution center for the southeast, supporting large companies such as Liz Claiborne, Russell Corporation, and Consolidated Stores. The Information Technology industry is a growing part of the Montgomery area economy, with 125 companies located in the capital city. Five local universities and colleges and two Air Force Bases provide opportunities for employment and supply a well-educated workforce. The Montgomery MSA as well as the State of Alabama has experienced a steady decline in the manufacturing sector since 1995. For example, from July 1998 to July 1999, Alabama manufacturing firms lost 9,300 jobs. Sixty percent of the jobs were in the textile and apparel industries. However, manufacturing jobs were up by an average of 100 jobs for the first eight months of 2001 compared to 2000.

The largest single contributor to the economy of the Montgomery region is the government sector. The U.S. military's presence in the region includes two air force bases that provide a broad spectrum of educational, training, command, and personnel support. The Public Affairs Office at MAFB estimates that the total economic impact of the military and civilian employment associated with the U.S. military in the region (including contracted dollars) in FY 2001 was $1.101 billion (MAFB 2001b).

Job Composition

The labor force level for the City of Montgomery was 95,961 in 2000 (U.S. Bureau of the Census [USBC] 2002g). The 2000 labor force for Montgomery County during the same year was 105,108. Sixty percent of these jobs were concentrated in the retail and services industries (Table 3-8).

Table 3-8 Distribution of Employment by Industrial Sector, City of Montgomery, 2000

Industrial Sector	Number of Jobs	Percent
Agriculture	397	0.5
Construction	4,270	4.9
Manufacturing	6,957	8.0
Wholesale Trade	2,790	3.2
Retail Trade	10,225	11.8
Transportation and Utilities	5,839	6.7
Finance, Insurance, and Real Estate	7,018	8.1
Services	38,790	44.7
Government	10,455	12.1

Source: USBC 2002g.

According to the Montgomery Chamber of Commerce, there are approximately 12,000 businesses located in the Montgomery MSA. Table 3-9 lists the region's ten largest employers, excluding MAFB, which is the largest area employer.

Table 3-9 Top Ten Major Employers in the Montgomery Region

Employer (Overall Rank)	Number of Employees
1. Baptist Health	4,800
2. Montgomery County Board of Education	3,500
3. Jackson Hospital and Clinic, Inc.	1,300
4. Rheem Manufacturing Company	1,150
5. Regions Mortgage, Inc.	1,100
6. U.S. Postal Service	900
7. Alfa Insurance Companies	840
8. Auburn University Montgomery	800
9. Alabama State University	792
10. Regions Bank	775

Source: AAFES 2000.

Earnings

Average annual wages vary in Alabama due to factors such as the type of jobs available, the different industrial composition of the counties, the mix between seasonal and year-round work, and the extent of union activity. Many of the jobs in Montgomery County provide relatively high wages, resulting in an annual average wage of $29,127 in 2000—ranked tenth highest among the 67 counties in the state. Alabama's average annual wage was $28,280 in 2000. The annual average wage for the Montgomery MSA was $28,245 (U.S. Department of Commerce, Bureau of Economic Analysis 2001).

Per capita income is a broader measure of financial strength for the residents of a county, including resources such as dividends, rents, and government transfer payments, as well as wages. Montgomery County was ranked fourth out of 67 counties in Alabama with a per capita income level of $27,313.

Unemployment

Review of unemployment rates for 2000 reveal that both the City of Montgomery and Montgomery County had unemployment rates above those of the State of Alabama (Table 3-10). In 2000, the annual average unemployment rate for Montgomery County was among the lowest of all counties in Alabama.

Table 3-10 Unemployment Rates for City of Montgomery, Montgomery County, and State of Alabama: 2000

Year	City of Montgomery	Montgomery County	State of Alabama
2000	4.2 percent	4.0 percent	3.7 percent

Source: USBC 2002g.

3.9.2.3 AAFES Employment and Expenditures

The AAFES shoppette at MAFB employs 25 personnel with combined annual salary and benefits totaling $706,000. Annual sales for the existing shoppette (including car care center and fuel station) average $600,000 (AAFES 2002).

3.10 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

3.10.1 Definition of Resource

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued to focus attention of Federal agencies on human health and environmental conditions in minority and low-income communities. In addition, EO 12898 aims to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed.

In order to provide a thorough environmental justice evaluation, this section gives particular attention to the distribution of race and poverty status in areas potentially affected by implementation of the proposed action. For purposes of this analysis, minority and low-income populations are defined as follows:

- *Minority Populations*: Persons of Hispanic origin, Blacks, American Indians and Alaska Natives, Asians, Native Hawaiian and Other Pacific Islanders, as well as those individuals who categorized themselves as "two or more races" or "some other race" on the Census 2000 questionnaire.

- *Low-Income Populations*: Persons living below the poverty level, based on U.S. Census Bureau intercensal data reported in the March 1999 Current Population Survey for individual counties.

Because children may suffer disproportionately from environmental health risks and safety risks, EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, was issued in 1997. EO 13045 helps to ensure that Federal agencies' policies, programs, activities, and standards address environmental risks and safety risks to children. This section identifies the locations where numbers of children may be disproportionately high (e.g., schools, childcare center, family housing) in areas potentially affected by implementation of the proposed action.

3.10.2 Existing Conditions

3.10.2.1 Race and Poverty Status

Population distribution data for Montgomery County, the City of Montgomery, and the State of Alabama are summarized in Table 3-11. The City of Montgomery has the highest percent minority population (52.9 percent), followed closely by Montgomery County at 51.7 percent and Alabama at 30.8 percent.

Table 3-11 Population Distribution: Montgomery County, City of Montgomery, and State of Alabama, 2000

Race Category	Montgomery County	% Total Pop	City of Montgomery	% Total Pop	Alabama	% Total Pop
White	107,858	48.3	94,868	47.1	3,125,819	70.3
Black	108,146	48.4	99,631	49.4	1,150,076	25.9
American Indian and Alaska Native	530	0.2	468	0.2	21,618	0.5
Asian	2,189	1.0	2,120	1.1	30,989	0.7
Native Hawaiian and Other Pacific Islander	67	0.0	66	0.0	1,059	0.0
Hispanic	2,665	1.2	2,484	1.2	75,830	1.7
Other[1]	2,055	0.9	1,931	1.0	41,709	2.0
TOTAL	**223,510**	**100**	**201,568**	**100**	**4,447,100**	**100**

Source: USBC 2002e

[1]Census 2000 allowed respondents to define their race as either White, Black, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, or Hispanic. In addition, respondents were allowed to report "Some other race" and were given the option of selecting two or more races (57 possible combinations). The "Other" category combines numbers for "Some other race" and all combinations of two or more races.

Table 3-12 compares populations of Montgomery County, the State of Alabama, and the United States that were below the poverty level in 1998, based on U.S. Census Bureau estimates. Data reveals that the percent of the population below the poverty level in Montgomery County (17.0 percent) was higher than the population below the poverty level statewide (15.7 percent). Both Montgomery County and the State of Alabama had higher levels than the general U.S. percentage of 13.3 percent.

Table 3-12 Poverty Status: Montgomery County, State of Alabama, and United States, 1998

Montgomery County	% Total Pop	Alabama	% Total Pop	United States	% Total Pop
35,840	17.0	681,788	15.7	35,573,858	13.3

Source: USBC 2002f

3.10.2.2 Protection of Children

As required by EO 13045, this analysis includes an assessment of the potential for children to be disproportionately exposed to environmental health risks and safety risks. According to the MAFB Comprehensive Plan, as well as a field survey, there are no facilities adjacent to, or in the immediate area of, the proposed action that would contain disproportionate populations of children.

3.11 HAZARDOUS MATERIALS AND WASTES

3.11.1 Definition of Resource

Hazardous materials and hazardous waste are defined and categorized by numerous environmental statutes as substances with physical properties of ignitability, corrosivity, reactivity, concentration, or toxicity that may cause or contribute significantly to an increase in mortality, serious irreversible illness, or incapacitating reversible illness, or pose a substantial threat to human health or the environment. To protect people and the environment from potentially harmful releases of hazardous substances, and pursuant to Federal and state laws, The Executive Branch (Executive Order 12088) and the Department of Defense (DoD Instruction 4150.7) have directed that all military departments develop and implement hazardous materials and hazardous waste management procedures to safeguard the environment.

The U.S. Air Force, through Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, establishes the policy that the Air Force is committed to environmentally sound practices including: cleaning up environmental damage from past activities; meeting all environmental standards applicable to present operations; planning future activities to minimize environmental impacts; managing responsibly any natural and cultural resources it holds in public trust; and eliminating pollution from its activities wherever possible. AFPD 32-70 and the Air Force Instructions (AFI) series 32-7000 incorporate the requirements of all Federal regulations, DoD Directives, and other AFIs for the management of hazardous materials and hazardous wastes.

3.11.2 Existing Conditions

The Environmental Flight at MAFB (Maxwell Support Division Civil Engineering Environmental Section [MSD/CEV]) is responsible for the management of hazardous materials and wastes for the entire installation. A Hazardous Materials Pharmacy has been instituted to oversee, and to the maximum extent possible minimize, the procurement, use, and disposal of hazardous materials. MAFB qualifies as a large quantity generator of hazardous waste under the Resource Conservation and Recovery Act (RCRA). There is one Hazardous Waste Manager assigned to the Environmental Flight and all matters concerning hazardous waste are managed through this individual. Disposal of hazardous waste is arranged through a Defense Reutilization Marketing Office (DRMO) service contract wherein licensed hazardous waste contractors remove and dispose of the waste, and DRMO maintains all hazardous waste documentation in accordance with pertinent regulations. The Environmental Flight has developed the following specific plans to manage both hazardous materials and hazardous wastes at MAFB.

<u>*Hazardous Materials.*</u> A user-friendly, simple-to-follow guide for ordering, using, and disposing of hazardous materials at MAFB was developed by the Environmental Flight. This guide, entitled *Hazmats Made Easy (as possible), (Maxwell AFB Hazardous Materials Management Guide)* (MAFB 2000c), incorporates the procedures and standards contained in AFI 32-7086 that govern management of hazardous materials throughout the U.S. Air Force. It applies to all Air

Force personnel who authorize, procure, use or dispose of hazardous materials and to those who manage, monitor, or track any of those activities.

Hazardous Waste. The Environmental Flight, pursuant to AFI 32-7042, developed a *Hazardous Waste Management Plan, 42 ABW Plan 32-10* (MAFB 2000d). This plan provides guidance to MAFB personnel on the proper handling, storage, and disposal of hazardous waste and implements the USEPA "cradle-to-grave" management controls for hazardous waste.

Asbestos. AFI 32-1052 mandates that installations develop an asbestos management plan to reduce the potential of personal exposure to potentially hazardous levels of airborne asbestos fibers and to maintain compliance with pertinent asbestos regulations. The Environmental Flight developed an *Asbestos Management and Operations Plan, 42 ABW 32-13* (MAFB 2000e) to meet these requirements.

Lead-Based Paint. Pursuant to U.S. Air Force requirements, the Environmental Flight developed a *Lead-Based Paint Management Plan, 42 ABW 32-14* that provides guidance for identifying, evaluating, managing, and abating lead-based paint hazards (MAFB 2000f).

Pollution Prevention. AFI 32-7080 implements the regulatory requirements of several federal statutes for the reduction or prevention of pollution by mandating the development of installation Pollution Prevention Management Plans. In furtherance of this requirement, the Environmental Flight has developed the *Pollution Prevention Management Action Plan, 42 ABW Plan 32-12* (MAFB 2001f) and the *Oil and Hazardous Materials Spill/Prevention and Response, 42 ABW Plan 32-11* (MAFB 1999b).

Solid Waste Management. MAFB has implemented a Solid Waste Management Plan for the proper disposal of non-hazardous solid waste generation on the installation. There are no solid waste landfills in use at MAFB, so all non-hazardous solid waste is collected and disposed of by licensed private contractors at either the North Montgomery Municipal Landfill or a permitted private landfill. Yard waste is collected and transported to a compost facility on the installation. Recyclable materials are collected and transported by a private contractor to a commercial recycling center (MAFB 2000b).

The primary types of hazardous waste generated at MAFB include medical supplies, adhesives, paint-related wastes, solvents, batteries, contaminated absorbents from spill cleanup, oil filters, and corrosive liquids. The existing AAFES shoppette does not routinely generate hazardous waste; however, it stocks a variety of consumer items (e.g., aerosol cans containing paints or pesticides, auto care products, household cleaning products, solvents) that are or may contain hazardous substances. Such products, if spilled or otherwise unintentionally released, could be categorized as hazardous waste. Additionally, containers of hazardous materials that remain in storage beyond their intended shelf life, or that become damaged and cannot be sold, must be managed and disposed of as hazardous waste. The car care center at the AAFES shoppette generates small quantities of hazardous waste (i.e. waste oil). The used oil UST and the OWS is pumped and cleaned out by the USEPA every 3 to 4 months or as needed.

3.11.2.1 Installation Restoration Program

This section describes activities in the vicinity of the proposed action that are part of the MAFB Installation Restoration Program (IRP). The status of environmental restoration and associated compliance programs at Maxwell is documented in the *Installation Restoration Program Management Action Plan*, or IRP MAP (MAFB 2001a). The IRP is managed by a Project Team led by the IRP Remedial Project Manager from the Environmental Flight. The team includes representatives from EPA Region 4 and the ADEM, and the various parties strive to work together to address contamination generated from both on-Base and off-Base sources. The Project Team meets quarterly or on an as-needed basis.

The IRP requires each DoD installation to identify, investigate, and clean up hazardous waste disposal or release sites. According to the MAFB IRP MAP (MAFB 2001a), MAFB has 32 IRP sites and 17 in-use underground storage tanks (USTs). The majority of IRP sites at MAFB have been identified during military construction activities. Specifically, either areas of contamination were encountered during excavation operations or abandoned fuel pipelines were encountered and damaged during excavations, resulting in a release. Table 3-13 lists the MAFB IRP sites and their current status.

Table 3-13 Status of IRP Sites on MAFB

Site ID No.	*Description*	*Status*
SS-004*	Contaminated Groundwater (External Source), Railroad Area	ROD[1]
SS-007	Building 1037 Contaminated Groundwater	ROD
SS-008	Junk Yard Site	ROD
SS-011	Building 1063 Contaminated Groundwater	ROD
FT-002	Firing Training Area No. 2	ROD
LF-002	Landfill No. 2	ROD
LF-003	Landfill No. 3	ROD
LF-004	Landfill No. 4	ROD
LF-005	Landfill No. 5	ROD
LF-006	Landfill No. 6	ROD
SS-002	AVGAS[2] Chlorinated Solvents	ROD
SS-003*	Building 913 Contaminated Groundwater	ROD
SS-006	Building 1048 Contaminated Groundwater	ROD
SS-009	U.S. Highway 31 Gas Station Spill Site	ROD
SS-010*	Old Pipeline Fuel Contamination	RA[3]
ST-010*	1100 Area Base Fuel Farm	RA
ST-011	AVGAS System and Flightline Area	RA
DP-001	Electroplating Waste Disposal Area	NFRAP[4]
FT-001	Firing Training Area No. 1	NFRAP
LF-001	Landfill No. 1	NFRAP
SD-001	Surface Drainage System	NFRAP
SS-001	Civil Engineering Drum Storage Area	NFRAP
SS-005	Building 1000 Soil Contamination	NFRAP
ST-001	Building 1037 USTs	NFRAP
ST-002*	Building 1130 UST	NFRAP
ST-003*	Building 913 UST	NFRAP
ST-004	Building 1048 UST	NFRAP
ST-005*	Building 1112 UST	NFRAP
ST-006	Building 714 UST	NFRAP
ST-007	Building 1245 Asphalt Storage Tank	NFRAP
ST-008	Runway Lighting Auxiliary Generator UST	NFRAP
ST-009	Building 668 USTs	NFRAP

Source: MAFB 2001a.
Notes: [1] ROD – Record of Decision
[2] AVGAS—Aviation Grade Gasoline
[3] RA—Remedial Action
[4] NFRAP—No Further Remedial Action Planned
* IRP Sites of Interest to the proposed action

Seven of the IRP sites at MAFB are of interest in assessing potential impacts associated with the proposed action because of their proximity to the preferred construction site. They are: SS-004; SS-003, SS-010, ST-010, ST-002, ST-003, and ST-005. (Figure 3-5, Table 3-14).

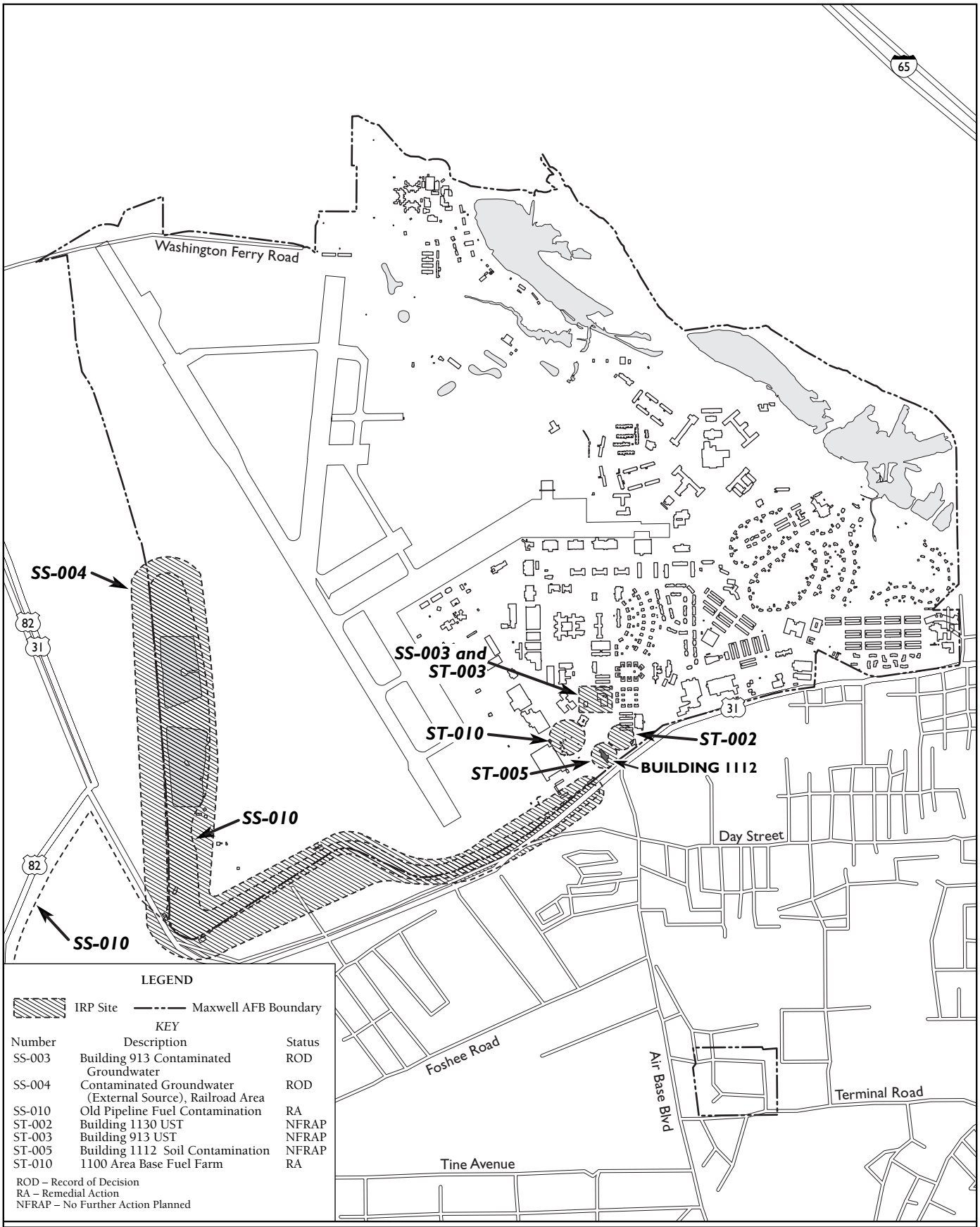


Figure 3-5
IRP Sites in the Vicinity of the
Proposed Action at Maxwell AFB, AL

Table 3-14 Description of IRP sites in the Vicinity of the Proposed Action

IRP Site No.	*Description and Status*
• SS-004	Contaminated groundwater from an external source originating from an off-base industrial area bordering the southern and western portions of the base. Groundwater flow in this area is off-base to on-base. Groundwater was sampled and analyzed in 1991, 1997, and 1999. The site is currently in the Record of Decision (ROD) stage.
• SS-003	Contaminated groundwater at Building 913. A preliminary assessment/site investigation, feasibility study, and contaminated soil removal action were conducted in 1989. Groundwater sampling was conducted in 1999, and an additional remedial investigation was conducted in 2000. The site is currently in the ROD stage.
• SS-010	Old pipeline fuel contamination consisting of JP-4 aircraft fuel. This site consists of a 4-inch underground jet fuel pipeline, which was installed in 1961 to supply MAFB Fuel Tank Farm from a commercial off-Base fuel terminal. This pipeline has a history of leakage over the years. The pipeline was taken out of service in 1983 due to a leakage of a 300-foot section in the Fuel Farm compound. Geophysical surveys were conducted in 1992 and 1994. Soil and groundwater sampling and analysis were conducted in 1994, 1995, and 1996. The site is currently in the investigation/corrective action process as part of the base-wide operable unit (OU)-1 groundwater cleanup strategy outlined in the Proposed Plan for Maxwell AFB.
• ST-010	Building 1100 Area Base Fuel Farm. This site is located on the southwest corner of the intersection of Chanute and Selfridge Streets in the south central portion of the Base. The Fuel Farm consists of 6 USTs with a total capacity of 1,127,000 gallons. The Fuel Farm was constructed in 1943, and the original tanks were supplied by rail tank car until 1961. The Fuel Farm is currently supplied via an underground pipeline between the Fuel Farm and a commercial off-base fuel terminal. In 1989, 1991, and 1994, soil sampling and analysis were conducted. Groundwater was also sampled and analyzed in 1994 and 1996. There are groundwater contamination plumes extending north and northeast from the Tank Farm and down gradient towards Building 941. The site is currently in the corrective action process as part of the base-wide OU-1 groundwater cleanup strategy outlined in the Proposed Plan for Maxwell AFB.
• ST-002	Building 1130 UST. This site is located just north of the Day Street entrance gate, near the current Maxwell/Gunter Federal Credit Union. The site was built in 1955 and demolished in 1967, and originally housed an old fuel station consisting of three USTs containing leaded motor fuel. Three USTs were removed in 1987. The site is currently closed out and no further response action is planned.
• ST-003	Building 913 USTs. This site is located in the south central potion of MAFB at the southeast corner of the First Street and Avenue B intersection. The site is the former location of an old, now defunct, motor gasoline (MOGAS) facility that utilized two 550-gallon USTs. The USTs were installed during the 1940s and a preliminary assessment/site investigation was conducted in 1989. Two USTs and associated contaminated soil were removed in 1992. Three additional USTs and associated contaminated soil were removed in 1991. Soil and groundwater sampling and analysis were conducted in 1992 and 1994. The site is currently closed out and no further response action is planned.
• ST-005	Building 1112 UST. This site is located at the MAFB Service Station located adjacent to the southeastern boundary of the installation at the intersection of Third and Selfridge Streets. The area immediately adjacent to the Base boundary is light industrial and residential. During 1987, major renovation and expansion of the service station was conducted and gasoline-saturated soil was encountered during excavation. A UST pressure test and remedial investigation/feasibility study were conducted in 1987 and 1988. USTs and associated contaminated soil were removed in 1988. In 1994, this site was closed out. The site is currently closed out and no further response action is planned.

Source: MAFB 2001a.

Soil sampling was conducted in the vicinity of the proposed action in March 2003 (S&ME 2003). Soil samples were collected and analyzed for Total Petroleum Hydrocarbons in the gasoline and diesel range, and eight RCRA metals. Laboratory analytical results for the soil samples collected were below action levels for the petroleum compounds and at or below background levels for the metals. The concentrations of metals were compared to EPA Region 9 Preliminary Remediation Goals applicable to industrial land uses to determine potential human health risks. With the exception of lead, all of the metal concentrations were below the Preliminary Remediation Goals (USEPA 2003). Lead was detected in the study samples in the range of 7.88 to 16.9 mg/kg. Data from the U.S. Geological Survey (USGS) shows that the average background level of lead in soils in the eastern United States is 17 mg/kg (USGS 1984). In addition, the ADEM UST Branch staff concur that the soil lead levels at the site appear to be at background levels (S&ME 2003). Therefore, no reportable soil contamination was found, indicating no further action or study is warranted.

3.12 UTILITIES

3.12.1 Definition of Resource

Utilities consist of land, facilities, structures, energy, and services necessary to perform required operations. This assessment presents baseline conditions, including current consumption levels, for electricity and natural gas, potable water, wastewater, and solid waste management associated with relevant AAFES functions at MAFB.

3.12.2 Existing Conditions

3.12.2.1 Electricity and Natural Gas

MAFB receives electricity from an Alabama Power Company substation located near the installation. MAFB is a "Priority 1" customer for the Alabama Power Company, which ensures that the installation would receive electrical service in the event that peak demands limit the ability of Alabama Power to supply service to all its customers. There are no daily limits imposed on MAFB for electrical consumption (MAFB 2002c). The existing shoppette consumed 479,760 kilowatt hours (kwh) of electricity in FY 2002.

Natural gas is provided to MAFB by the Alabama Gas Corporation (ALAGASCO). There are no daily limits imposed on MAFB for natural gas consumption (MAFB 2002c). The existing shoppette consumed 1,000 cubic feet of natural gas in FY 2002.

3.12.2.2 Water

MAFB obtains its potable water from the City of Montgomery, which obtains water from both groundwater and surface water sources. Three aquifers are accessed via well fields located in various locations in the city. The Tallapoosa River is the sole source of surface water used by the City of Montgomery for potable water. There are no daily limits imposed on MAFB for water consumption (MAFB 2002c). The existing shoppette consumed 5,000 gallons per month (fixed rate) or 60,000 gallons of water in FY 2002.

3.12.2.3 Wastewater

The Catoma Wastewater Treatment Plant provides tertiary treatment to MAFB. The treatment plant is operated and maintained by the City of Montgomery. The plant has a capacity of 21 million gallons per day (MGD) and records an annual average of 10 MGD (City of Montgomery 2002a).

3.12.2.4 Solid Waste Management

Solid waste generated at MAFB is either recycled or disposed of in the North Montgomery City Landfill located west of MAFB. This 400-acre landfill began operation in 1980 and incorporates lined cells for garbage refuse and unlined cells for construction debris and other "dry" refuse. As

of 2002, the landfill had an estimated 21 years of remaining operating life (City of Montgomery 2002b).

Approximately 75 percent of the solid waste generated by the existing AAFES shoppette consists of recyclable materials such as corrugated cardboard and other packing materials and plastic bottles, aluminum, and glass. AAFES has significantly reduced the quantity of material sent to the landfill by implementing a comprehensive recycling program in conjunction with MAFB.

4 ENVIRONMENTAL CONSEQUENCES

Resource analysis presented in this section is based on an examination of the potential effects of the proposed action and the No-Action Alternative (described in Section 2) on existing environmental conditions (described in Section 3). The discussion of potential environmental consequences follows the sequence of existing environmental conditions, as presented in Section 3.

4.1 AIR QUALITY

4.1.1 Approach to Analysis

Criteria pollutant emissions resulting from proposed construction activities at the MAFB have been evaluated for the proposed action and No-Action Alternative. Air quality impacts would be significant if emissions associated with the proposed action or No-Action Alternative would: 1) increase ambient air pollution concentrations above the NAAQS; 2) contribute to an existing violation of the NAAQS; 3) interfere with, or delay timely attainment of the NAAQS; or 4) impair visibility within Federally mandated PSD Class I areas. Additionally, a conformity analysis would be required before initiating any action that might lead to nonconformance of a SIP or an exceedance of *de minimis* criteria pollutant thresholds, or that might contribute to a violation of the NAAQS.

4.1.2 Impacts

4.1.2.1 Proposed Action

Demolition and Construction Emissions

Demolition and construction activities associated with the proposed action at MAFB would result in minor, temporary increases in criteria pollutant emissions. Specifically, emissions from construction and construction-related vehicles used during facility demolition and construction activities would increase. In addition, fugitive dust (i.e., PM_{10}) would increase as a result of surface disturbances (e.g., grading and vegetation removal) associated with construction activities. However, there would be no long-term increase in mobile or stationary source emissions at the installation due to the proposed action. Neither the duration nor frequency of mission activities would change.

Total emissions resulting from proposed construction activities have been estimated, using the Air Force's Air Conformity Applicability Model (ACAM) (USAF 2002) and accounting for fugitive dust and vehicle exhaust emissions from construction vehicles and equipment (Table 4-1). Emissions were estimated based upon the total square footage associated with the proposed action, over an assumed construction period of eight months. Demolition and construction vehicles involved used during implementation of the proposed action would consist of a mixture of loaders, trucks, backhoes, excavators, water trucks, and other vehicles and equipment typically associated with demolition and construction activities.

Table 4-1 Estimated Demolition and Construction Emissions as a Result Implementation of the Proposed Action (tons/year)

	CO	VOCs	NO_X	SO_2	PM_{10}
Construction Emissions	7.0	1.0	3.0	<< 0.1	1.0
Gas Station Emissions[1]	N/A	36.0	N/A	N/A	N/A
Total Emissions	**7.0**	**37.0**	**3.0**	**<< 0.1**	**1.0**
Representative *de minimis* levels[2]	100	100	100	100	100
Exceeds de minimis Threshold	N/A	N/A	N/A	N/A	N/A

Notes: [1] Gas station emissions would occur on an annual basis; construction emissions would not.
[2] *de minimis* levels are presented for comparison purposes only; the region is in attainment of the NAAQS.
CO - Carbon Monoxide; VOCs - Volatile Organic Compounds; NO_x - Nitrogen Oxides; SO_2 - Sulfur Dioxide; PM_{10} - particulate matter less than 10 microns in diameter; N/A = not applicable.

Gas Station Emissions

Under the proposed action, three existing 10,000-gallon USTs with associated pumps and piping would supply 12 gasoline dispensers. Direct emissions from gas stations are generated as a result of vapor releases during re-fueling activities and are limited to VOCs and HAPs. Emissions resulting from the use of the proposed gas station have been estimated based on an annual throughput of 3,600,000 gallons and include emissions from refueling the USTs, emptying losses from the USTs, gas tank vapor displacement, and spillage. Proposed gas station activities would produce an estimated annual total of 37.0 tons of VOCs (see Table 4-1).

Total Emissions

Data presented in Table 4-1 shows that estimated air emissions resulting from proposed demolition and construction and projected vehicle refueling activities, although not occurring within a nonattainment or maintenance area, would be below *de minimis* levels; a conformity analysis would not be necessary even if the proposed action occurred in a nonattainment or maintenance area. In addition, estimated emissions as a result of implementation of the proposed action would not violate the NAAQS (Table 4-2).

Table 4-2 Estimated Annual Criteria Pollutant Concentrations as a Result of Implementation of the Proposed Action

Criteria Pollutant	Averaging Period	NAAQS	Emissions from Proposed Action as a Percentage of the NAAQS
CO	1-hour	35 ppm	<< 0.01
	8-hour	9 ppm	<< 0.01
NO_X	Annual	0.053 ppm	<< 0.01
SO_X	3-hour	0.50 ppm	<< 0.01
	24-hour	0.14 ppm	<< 0.01
	Annual	0.03 ppm	<< 0.01
PM_{10}	24-hour	150 $\mu g/m^3$	<< 0.01
	Annual	50 $\mu g/m^3$	<< 0.01

Notes: ppm - parts per million; $\mu g/m^3$ - micrograms per cubic meter.

Demolition and construction-related emissions as a result of implementation of the proposed action would temporarily impact local air quality. However, vehicle emissions generated by proposed demolition and construction activities would be temporary and short-term; no long-term increases in vehicle emissions would occur. Emissions associated with construction-related vehicles and equipment would be negligible, as most vehicles would be driven to and kept at the affected site until construction was complete.

Fugitive dust generated from proposed construction activities would temporarily impact local air quality. However, fugitive dust generated by proposed construction activities would be temporary and short-term; no long-term increases in fugitive dust would occur. Additionally, increases in PM_{10} would be moderated through Best Management Practices (BMPs), including watering of exposed soils, soil stockpiling, and soil stabilization, thereby limiting the total quantity of fugitive dust emitted during the construction period.

The proposed action would be subject to Stage 1 requirements for gasoline dispensing in the State of Alabama. Therefore, AAFES would submit a Stage 1 Gasoline Dispensing Permit Application (Form 197) to ADEM for review prior to construction.

Implementation of the proposed action would not lead to an exceedance of *de minimis* thresholds and estimated criteria pollutant emissions would not violate the NAAQS; determination of conformity to the Alabama SIP is not required. In addition, implementation of the proposed action would not impair visibility within a PSD Class I area as no PSD Class I areas are located within the vicinity of the proposed action. Therefore, no significant impacts to air quality would occur as a result of implementation of the proposed action.

4.1.2.2 No-Action Alternative

Under the No-Action Alternative, proposed short-term construction activities at Building 1112 would not occur. Baseline air quality, as described in Section 3.1, would remain unchanged. Therefore, no significant impacts to air quality would occur as a result of implementation of the No-Action Alternative.

4.2 NOISE

4.2.1 Approach to Analysis

Noise impacts as a result of implementation of the proposed action at MAFB have been evaluated to the degree to which they would affect the baseline noise environment, as described in Section 3.2. Potential changes in the noise environment can be beneficial (i.e., if the number of sensitive noise receptors exposed to unacceptable noise levels is reduced); negligible (i.e., if the total area exposed to unacceptable noise levels is essentially unchanged); or adverse, (i.e., if they result in increased exposure to unacceptable noise levels).

4.2.2 Impacts

4.2.2.1 Proposed Action

Under the proposed action, minor, temporary impacts to the noise environment in the vicinity of the proposed construction site would occur. The use of heavy equipment for site preparation and development (e.g., vegetation removal, grading, and back fill) could potentially generate noise levels above average ambient noise levels. However, noise levels would be typical of standard construction activities; would cease with the completion of proposed construction activities; and would only occur during normal working hours (i.e., between 7:00 A.M. and 5:00 P.M., Monday through Friday). Furthermore, sound levels could be reduced through the use of equipment sound mufflers.

Generally, the average sound level produced by construction activities would be approximately 85 A-weighted decibels (dBA) at a distance of 50 feet (USEPA 1971). However, as the nearest noise-sensitive receptor (an on-base residential area) is located approximately 700 feet northeast from the site of the proposed action, no appreciable noise impacts to residential areas would occur. In addition, the operation and use of the proposed facility would not generate significant noise levels above existing levels and the noise environment in the vicinity of the proposed action would continue to be dominated by aircraft and vehicular traffic. Therefore, no significant impacts to the noise environment as a result of implementation of the proposed action would occur.

4.2.2.2 No-Action Alternative

Under the No-Action Alternative, proposed construction of the new shoppette at MAFB would not occur. The baseline noise environment, as described in Section 3.2, would remain unchanged. Therefore, no significant impacts to noise would occur as a result of implementation of the No-Action Alternative.

4.3 LAND USE

4.3.1 Approach to Analysis

Significance of potential land use impacts is based on the level of land use sensitivity in areas affected by a proposed action. In general, land use impacts would be significant if they would: 1) be inconsistent or in non-compliance with applicable land use plans or policies; 2) preclude the viability of an existing land use activity; 3) preclude continued use or occupation of an area; or 4) be incompatible with adjacent or vicinity land use to the extent that public health or safety is threatened.

4.3.2 Impacts

4.3.2.1 Proposed Action

Implementation of the proposed action would result in beneficial impacts to land use at MAFB. Use of the site selected for the proposed action is in accordance with the adopted Comprehensive Plan for MAFB and all project components will be designed and sited to be compatible with existing base land use. The proposed action would be centrally located within the Community-Commercial land use zone, thereby maintaining the functional relationship among community facilities. Furthermore, the site would be easily accessible to all family housing areas and community support areas. The site is also accessible to military personnel residing in the civilian community. As described in Section 4.2.2.1, Noise, construction noise levels would be similar to typical construction noise, would last only the duration of demolition and construction activities (approximately 8 months), and could be reduced through the use of equipment sound mufflers and restricted hours of construction. Therefore, impacts to land use would not be significant.

4.3.2.2 No-Action Alternative

Under the No-Action Alternative, proposed construction of a new shoppette at Building 1112 would not occur. Baseline land use, as described in Section 3.3, would remain unchanged. Therefore, no significant impacts to land use would occur as a result of implementation of the No-Action Alternative.

4.4 GEOLOGICAL RESOURCES

4.4.1 Approach to Analysis

The protection of unique geologic features, minimization of soil erosion, and the location of facilities in relation to potential geologic hazards are considered when evaluating impacts of a proposed action. Generally, impacts on geological resources are not significant if proper construction techniques and erosion control measures are implemented to minimize or mitigate short and long-term disturbance to soils and to overcome limitations imposed by earth resources.

4.4.2 Impacts

4.4.2.1 Proposed Action

Geological Resources

Demolition and construction activities associated with the proposed action would not significantly affect the geologic units underlying the installation as no unique geologic features or geologic hazards are present. Although ground disturbance would occur at the installation during construction, the construction would occur over previously disturbed surfaces. In addition, while proposed construction activities would require some minimal grading, no significant topographic features would be affected as a result of development associated with the proposed action. Therefore, no significant impacts to geological resources would occur as a result of implementation of the proposed action.

Soils

Soils would be disturbed during grading activities associated with proposed demolition and construction. However, implementation of BMPs during construction would reduce impacts to soils associated with grading and clearing activities. In addition, standard erosion control measures (e.g., silt fencing, sediment traps, application of water sprays, and revegetation of disturbed soils) would be implemented to reduce potential impacts related to these characteristics. Therefore, no significant impacts to soils would occur as a result of implementation of the proposed action.

4.4.2.2 No-Action Alternative

Under the No-Action Alternative, proposed short-term demolition and construction activities at Building 1112 would not occur. There would be no construction or ground-disturbing activities. As a result, baseline conditions for geological resources and soils would remain unchanged. Therefore, no significant impacts to geological resources or soils would occur as a result of implementation of the No-Action Alternative.

4.5 WATER RESOURCES

4.5.1 Approach to Analysis

The analysis of water resources includes all surface and groundwater resources at the installation as well as watershed areas affected by existing and potential runoff. Significant impacts to water resources could potentially occur if the proposed action resulted in changes to water quality or supply; threatened or damaged unique hydrologic characteristics; endangered public health by creating or worsening health hazards; or violated established laws or regulations. Impacts of flood hazards on proposed actions would be significant if such actions are proposed in areas with high probabilities of flooding. Potential impacts to wetlands are discussed in Section 4.6, Biological Resources.

4.5.2 Impacts

4.5.2.1 Proposed Action

Surface Water

Under the proposed action, proposed construction activities would result in a temporary increase in total suspended particulate matter (i.e. sedimentation) to nearby surface water. To minimize potential impacts, BMPs (see Section 4.4.2.1, Soils, above) would be implemented during the construction period.

The proposed action would disturb more than one acre of land at MAFB. Therefore, AAFES would contact the ADEM Water Division and file a Notice of Registration for National Pollution Discharge Elimination System (NPDES) General Permit coverage. In addition, a Construction Best Management Practices Plan would be developed and implemented on-site for the duration of the construction period. Construction would have minor localized (i.e., site-specific) effects on surface water hydrology; however, BMPs would be incorporated during construction to minimize potential erosion, runoff, and sedimentation. Proposed construction activities would not occur within a 100-year floodplain zone.

Because the site of the proposed action is already nearly impervious, no appreciable net increase in stormwater discharge volumes and intensities are anticipated following completion of the proposed action. Any increase in stormwater volume would be minor and would be accommodated by the existing stormwater discharge infrastructure (MAFB 2002e). Therefore, no significant impacts would occur to surface water resources as a result of implementation of the proposed action.

Groundwater

Site disturbance and construction associated with the proposed action are not anticipated to affect groundwater resources. Construction operations would not reach depths that could affect

groundwater resources. Therefore, no significant impacts would occur to groundwater resources as a result of implementation of the proposed action.

4.5.2.2 No-Action Alternative

Under the No-Action Alternative, proposed short-term construction activities at Building 1112 would not occur. Baseline surface water and groundwater conditions would remain unchanged. Therefore, no significant impacts to surface water or groundwater would occur as a result of implementation of the No-Action Alternative.

4.6 BIOLOGICAL RESOURCES

4.6.1 Approach to Analysis

Determination of the significance of potential impacts to biological resources is based on: 1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource; 2) the proportion of the resource that would be affected relative to its occurrence in the region; 3) the sensitivity of the resource to proposed activities; and 4) the duration of ecological ramifications. Impacts to biological resources are significant if species or habitats of concern are adversely affected over relatively large areas or disturbances cause reductions in population size or distribution of a species of concern.

This section analyzes the potential for impacts to biological resources, such as habitat loss, from implementation of the proposed action or alternative. Analysis of on-base impacts focuses on whether and how ground-disturbing activities may affect biological resources.

4.6.2 Impacts

4.6.2.1 Proposed Action

Vegetation and Forestry

Construction associated with the proposed action would require vegetation removal (i.e. grass) in landscaped and previously disturbed areas. However, due to the lack of sensitive vegetation at the proposed site, proposed demolition and construction would not have significant impacts on vegetation.

Rare, Threatened, and Endangered Species

No Federally-listed endangered, threatened, or proposed species, or their designated critical habitat under the jurisdiction of the USFWS, occur at or in the vicinity of the proposed action (USFWS 2003). Furthermore, the Alabama Department of Conservation and Natural Resources concludes that the closest sensitive species to the proposed action is recorded as occurring 8.3 miles from the site of the proposed action (ADCNR 2002). Therefore, there would be no impacts to threatened or endangered species with implementation of the proposed action.

Wetlands

There are 29 wetlands, 6 streams and drainages, and 13 lakes and ponds delineated at MAFB (MAFB 2000a). All of the wetlands occur within the 100-year floodplain primarily located along the low northern floodplain boundary of the base. No wetlands occur at or in the vicinity of the proposed action, therefore, no significant impacts would occur to wetlands as a result of implementation of the proposed action.

4.6.2.2 No-Action Alternative

Under the No-Action Alternative, demolition and construction activities associated with the proposed action at Building 1112 would not occur. Baseline vegetation and forestry resources would remain unchanged. In addition, no wetlands or Federally-listed endangered, threatened, or proposed species, or their designated critical habitat under the jurisdiction of the USFWS, or state-designated sensitive species, occur at or in the vicinity of the proposed action. Therefore, no significant impacts to biological resources would occur as a result of implementation of the No-Action Alternative.

4.7 TRANSPORTATION AND CIRCULATION

4.7.1 Approach to Analysis

Impacts on transportation and circulation would be considered significant if the proposed action affected the safety and/or the capacity of roads at the installation and within the region. In addition, impacts would be considered significant if the proposed action increased the potential for traffic disruption or congestion along regional and local transportation corridors.

4.7.2 Impacts

4.7.2.1 Proposed Action

Demolition and Construction Impacts

Proposed demolition and construction activities would require the removal of demolition-related debris and the delivery of construction equipment and materials to the installation. However, construction traffic would constitute a small portion of the total existing traffic volume in the region and at the installation. The majority of vehicles used for construction activities would be driven to the construction site and kept onsite for the duration of construction, resulting in only a small increase in vehicle trips. In addition, increases in traffic volumes associated with demolition and construction activities would be temporary. Upon completion of construction, no long-term impacts to off-base transportation systems would occur.

Implementation of proposed construction at the installation would result in minor, temporary impacts to on-base traffic circulation as a result of increased traffic associated with construction vehicles. However, these impacts would be short-term and would not have a significant impact on the installation's transportation network.

Operational Impacts

From an operational standpoint, the proposed action would result in beneficial impacts to vehicle circulation. The proposed action would increase the number of gasoline dispensers from 4 to 12 which would improve efficiency of cars flowing in and out of the gasoline station during peak hours. In addition, the expansion and reconfiguration of the new shoppette access roads would improve traffic congestion that currently queue up in the parking lot during peak traffic periods. The site of the proposed action has ample space for expansion and is located in an ideal location for developing the AAFES shoppette and associated services, facilitating efficient vehicular movement within and around the site. An increase in vehicle trips on West Selfridge Street may be realized as a result of the new shoppette and associated facilities. However, the increase in traffic levels would not significantly affect safety and/or the capacity of roads at the installation and within the region (MAFB 2002d). The ingress and egress design for the proposed shoppette is under review and consideration by AAFES and personnel at MAFB to ensure that the most appropriate design is selected to minimize potential impacts associated with traffic and circulation. There would be no impacts to existing installation parking as adequate parking

would be accommodated on-site. Therefore, no significant impacts to transportation and circulation would occur as a result of implementation of the proposed action.

4.7.2.2 No-Action Alternative

Under the No-Action Alternative, proposed construction activities at Building 1112 would not occur. Baseline transportation and circulation conditions, as described in Section 3.7, would remain unchanged. Therefore, no significant impacts to transportation and circulation would occur as a result of implementation of the No-Action Alternative.

4.8 CULTURAL RESOURCES

4.8.1 Approach to Analysis

Cultural resources are subject to review under both Federal and state laws and regulations. Section 106 of the National Historic Preservation Act of 1966 empowers the Advisory Council on Historic Preservation to comment on Federally initiated, licensed, or permitted projects affecting cultural sites listed or eligible for inclusion on the NRHP. Once cultural resources have been identified, significance evaluation is the process by which resources are assessed relative to significance criteria for scientific or historic research, for the general public, and for traditional cultural groups. Only cultural resources determined to be significant (i.e., eligible for the NRHP) are protected under the National Historic Preservation Act.

Analysis of potential impacts to cultural resources considers both direct and indirect impacts. Direct impacts may occur by: 1) physically altering, damaging, or destroying all or part of a resource; 2) altering characteristics of the surrounding environment that contribute to resource significance; 3) introducing visual, audible, or atmospheric elements that are out of character with the property or alter its setting; or 4) neglecting the resource to the extent that it deteriorates or is destroyed. Direct impacts can be assessed by identifying the type and location of the proposed action and by determining the exact locations of cultural resources that could be affected. Indirect impacts primarily result from the effects of project-induced population increases and the resultant need to develop new housing areas, utilities services, and other support functions necessary to accommodate population growth. These activities and facilities' subsequent use can disturb or destroy cultural resources.

4.8.2 Impacts

4.8.2.1 Proposed Action

The proposed construction would take place in an area previously disturbed by urban development. No archaeological sites or architectural resources are known to exist at or in the vicinity of the proposed action. Therefore, no significant impacts to cultural resources would occur as a result of implementation of the proposed action.

The installation's CRMP notes that, due to the nature of historic properties and the current methodological limitations of cultural resources surveys, all archaeological sites at MAFB and its associated lands may not have been discovered during prior surveys. Some properties may be discovered during the construction or implementation of an activity that has been approved. The CRMP mandates that if archaeological sites are discovered during the construction or implementation of an activity, all work in the area of the suspected site must cease and the MAFB Historic Preservation Officer must be notified immediately by telephone for consultation and appropriate action (MAFB 1999a). All regulations and policies relevant to the protection of cultural resources would be adhered to by AAFES during the demolition and construction process.

4.8.2.2 No-Action Alternative

Under the No-Action Alternative, proposed construction activities at Building 1112 would not occur. Baseline cultural resource conditions would remain unchanged. Therefore, no significant impacts on cultural resources would occur as a result of implementation of the No-Action Alternative.

4.9 SOCIOECONOMICS

4.9.1 Approach to Analysis

Significance of population and expenditure impacts are assessed in terms of their direct effects on the local economy and related effects on other socioeconomic resources within the region. Socioeconomic impacts would be considered significant if the proposed action resulted in a substantial shift in population trends, or notably affected regional employment, spending and earning patterns, or community resources.

4.9.2 Impacts

4.9.2.1 Proposed Action

The shoppette functions would increase their current levels of employment with the inclusion of a new restaurant, (to be either a franchise or AAFES-owned), car wash, increased services of the Auto Pride and car care center. Overall employment would increase by 12 employees for a total of 37 employees at the shoppette facilities. Current total annual salary and benefits associated with the existing shoppette total $706,000. Under the proposed action, the estimated total annual salary and benefits in FY 2004 associated with the shoppette facilities would be approximately $1,044,880. Annual sales are expected to increase once the new shoppette is opened. Annual sales for the existing shoppette (including car care center and Auto Pride station) average $600,000. Annual projected sales in FY 2004, after implementation of the proposed action, are estimated to be $1,000,000.

The anticipated sales increase attributable to the facilities owned and operated by AAFES would result in a loss in sales tax revenues to the surrounding area, as well as a minor loss in revenue to local and regional merchants that might receive that business if the new shoppette were not constructed. However, the increase in employment opportunities associated with the new shoppette and associated facilities would be beneficial to the local and regional economy. In addition, construction services procured through the local economy to construct the new shoppette would be considered a positive impact.

Thus, while there would likely be a loss in sales tax revenues to the surrounding areas, as well as a minor loss in revenue to local and regional merchants from AAFES-owned and operated business sales, there would also be an offsetting benefit to the economy through increased state and local tax revenue from the creation of 12 new jobs, and procurements for construction of the new shoppette. The multiplier effect would amplify these benefits, resulting in additional growth through reinvestment in the region. As a result of this offsetting activity, no significant adverse impacts to socioeconomic resources are anticipated.

4.9.2.2 No-Action Alternative

Under the No-Action Alternative, proposed construction activities at Building 1112 would not occur. Baseline socioeconomic conditions would remain unchanged. Therefore, no significant impacts to socioeconomic conditions would occur as a result of implementation of the No-Action Alternative.

4.10 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

4.10.1 Approach to Analysis

In order to comply with EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, ethnicity and poverty status in the vicinity of the proposed actions have been examined and compared to city, county, and state data to determine if any minority or low-income communities could potentially be disproportionately affected by implementation of the proposed action or alternatives. Similarly, to comply with EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*, the locations where numbers of children may be proportionally high on and in the vicinity of the proposed actions was determined to ensure that environmental risks and safety risks to children are addressed.

Three criteria must be met for impacts to minority and low income communities or children to be considered significant. 1) There must be one or more populations within the ROI. 2) There must be adverse (or significant) impacts from the proposed action. 3) The environmental justice populations within the ROI must bear a disproportionate burden of those adverse impacts. If any of these criteria are not met, then impacts with respect to environmental justice or protection of children would not be significant.

4.10.2 Impacts

4.10.2.1 Proposed Action

Under the proposed action, demolition and construction activities would be limited to the 4 acre site as shown in Figure 2-1. Analyses of resource areas conclude that populations (including minority and low-income populations) within and outside the installation would not be significantly impacted. Therefore, implementation of the proposed action would not disproportionately impact minority or low-income populations.

Implementation of the proposed action would not result in environmental health risks or safety risks to children, as no housing or facilities for children exist adjacent to or in the immediate vicinity of the proposed action. During proposed construction of the new shoppette, standard construction site safety precautions (e.g., fencing and patrolling) would be implemented. In addition, the existing high-security environment at the installation prohibits access by unauthorized personnel. For these reasons, potential health or safety impacts to children living or playing in the vicinity would be minimized. Therefore, no significant impacts to children from health risks or safety risks would occur as a result of implementation of the proposed action.

4.10.2.2 No-Action Alternative

Under the No-Action Alternative, proposed activities at Building 1112 would not occur. Baseline conditions would remain unchanged. Therefore, no significant impacts to environmental justice conditions would occur, nor would children be disproportionately exposed to increased health or safety risks as a result of implementation of the No-Action Alternative.

4.11 HAZARDOUS MATERIALS AND WASTES

4.11.1 Approach to Analysis

Federal, state, and local laws regulate the storage, disposal, and transportation of hazardous materials and wastes. These laws have been established to protect human health and the environment from potential impacts. The significance of impacts associated with hazardous wastes and materials is based on the toxicity of the substance, transportation and storage risk, and the method of waste disposal. Impacts are considered significant if the storage, use, transportation, or disposal of these substances increases human health risks or environmental exposure.

4.11.2 Impacts

4.11.2.1 Proposed Action

The proposed action is not expected to have an impact on the management of hazardous materials at MAFB. Under the proposed action the car care center would continue to generate small quantities of hazardous waste (i.e., used oil), which would be collected in a UST and OWS and pumped and cleaned out by the USEPA every 3 to 4 months or as needed. During the construction period, the construction contractor would be responsible for notifying the installation in advance of bringing any hazardous materials on the installation. Furthermore, the construction contractor would be responsible for disposing of any hazardous materials used on the site during construction activities.

Solid waste would be managed in accordance with the MAFB Solid Waste Management Plan (MAFB 2000c). All non-hazardous waste would be collected and disposed of by licensed private contractors at the North Montgomery Municipal landfill.

Of the six IRP sites in the vicinity of the proposed action, only IRP sites SS-010 and ST-010 are currently active sites which are undergoing remediation. These sites have been investigated extensively in accordance with state and federal regulations and guidelines. While remediation and long-term monitoring continue at SS-010 and ST-010, the existing groundwater contamination at these sites is not expected to have a measurable impact on the proposed action site.

Review of documents describing the investigations and actions completed to date for the SS-010 site indicates that the underground pipeline used to supply the MAFB Fuel Tank Farm (ST-010) was taken out of service in 1983 due to leakages of a 300-foot section in the Fuel Farm compound. The 4-inch underground jet fuel pipeline runs from off-base to where it comes on-base at the southwest corner of the installation then travel northeast to the Fuel Farm, which is located northwest of the proposed action. There are groundwater contamination plumes extending north and northeast from the Fuel Tank Farm (ST-010) and down gradient towards Building 941. Both IRP sites are currently in the investigation/corrective action process as part of the base-wide OU-1 groundwater cleanup strategy outlined in the Proposed Plan for Maxwell

AFB. No groundwater contamination is known to occur at the proposed action site (Building 1112) and the existing groundwater contamination plume appears to be flowing down gradient away from the project site. Therefore, these sites are not expected to have a measurable impact on the proposed action site.

As described in Section 3.11.2.1, soils sampling was conducted in March 2003 from seven locations around the Day Street Auto Pride Service Station facility (S&ME 2003). Soils samples were collected in each location at depths of 4, 8, and 12 feet below ground surface and were analyzed for Total Petroleum Hydrocarbons in the gasoline and diesel range, and eight Resource Conservation and Recovery Act metals. Laboratory analytical results for the soil samples collected were below action levels for the petroleum compounds and at or below background levels for the metals. The concentrations of metals were compared to EPA Region 9 Preliminary Remediation Goals applicable to industrial land uses to determine potential human health risks. With the exception of lead, all of the metal concentrations were below the Preliminary Remediation Goals (USEPA 2003). Lead was detected in the study samples in the range of 7.88 to 16.9 mg/kg. Data from the USGS shows that the average background level of lead in soils in the eastern United States is 17 mg/kg (USGS 1984). In addition, the ADEM UST Branch staff concur that the soil lead levels at the site appear to be at background levels (S&ME 2003). Therefore, no reportable soil contamination was found, indicating no further action or study is warranted.

In order to minimize the threat of exposure to potentially contaminated soils at the site, any soils excavated as part of the proposed action would be properly segregated by the construction contractor and then sampled by representatives of the Environmental Section at MAFB. Sample results would determine whether soils can be reused on the site or require proper disposal off-site at a facility permitted to receive the soils pursuant to appropriate State of Alabama regulations. Furthermore, procedures to minimize dust during excavation and construction will be implemented on-site. Therefore, no significant impacts would occur as a result of implementing the proposed action.

4.11.2.2 No-Action Alternative

Under the No-Action Alternative, no construction would occur at the site. The standards described above for management of potentially hazardous packaged consumer products would continue to apply during ongoing operation of the existing AAFES facilities. Baseline hazardous material and waste conditions would remain unchanged and IRP sites in the vicinity of the project site would continue to be studied and remediated as appropriate under the IRP. Therefore, there would be no impacts from hazardous materials and wastes with implementation of the No-Action Alternative.

4.12 UTILITIES

4.12.1 Approach to Analysis

The assessment of impacts to utilities is based on comparing existing use and condition to proposed changes in these resources. The analysis compares current utility usage for applicable functions with anticipated future demands to determine potential impacts. Potential impacts to utilities may occur if a change in demand resulting from the proposed action significantly affects the ability of a utility provider to service existing customers. Facilities, such as landfills, may be impacted if they are unable to effectively accommodate additional demands resulting from a proposed activity.

4.12.2 Impacts

4.12.2.1 Proposed Action

Electricity

There are no daily limits imposed on MAFB for electrical consumption (MAFB 2002c). Furthermore, MAFB is a "Priority 1" customer for the Alabama Power Company, which ensures that the installation would receive electrical service in the event that peak demands limit the ability of Alabama Power to supply service to all its customers.

The existing shoppette consumed 479,760 kwh of electricity in FY 2002. Under the proposed action, a new fast food style restaurant would be accommodated in the shoppette. Data on electrical consumption for the Burger King restaurant at MAFB (Building 1087) in FY 2002 reveals that this facility consumed 173,520 kwh. Assuming the new restaurant in the shoppette consumes approximately the same quantity of electricity annually as the Burger King at MAFB, the total electricity consumed annually by the new shoppette (shoppette and restaurant) could be estimated at approximately 653,280 kwh, a 36 percent increase over the existing shoppette's demand. However, because there are no daily limits imposed on MAFB for electricity, the minor increase in electricity demand under the proposed action would have no adverse impact on the ability of the Alabama Electrical Company to effectively serve customers.

Natural Gas

There are no daily limits imposed on MAFB for natural gas consumption (MAFB 2002c).

The existing shoppette consumed 1,000 cubic feet of natural gas in FY 2002 or 1.4 percent of the annual natural gas consumption for MAFB. Under the proposed action, a new fast food restaurant would be accommodated in the shoppette. Data on natural gas consumption for the Burger King restaurant at MAFB (Building 1087) in FY 2002 reveals that this facility consumed 40,700 cubic feet of natural gas. Assuming the new restaurant in the shoppette consumes approximately the same quantity of natural gas as the Burger King at MAFB, the total natural gas consumed annually by the new shoppette and associated facilities could be estimated at

approximately 41,700 cubic feet, a significant increase over the existing shoppette's demand. Because there are no daily limits imposed on MAFB for natural gas, the increase in natural gas demand under the proposed action would have no adverse impact on the ability of ALAGASCO to effectively serve customers.

Water

There are no daily limits imposed on MAFB for potable water consumption (MAFB 2002c).

The existing shoppette consumed 60,000 gallons of water in FY 2002. Under the proposed action, a new fast food restaurant would be accommodated in the shoppette. Data on water consumption for the Burger King restaurant at MAFB (Building 1087) in FY 2002 reveals that this facility consumed 403,000 gallons of water. Assuming the new restaurant in the mini-mall consumes approximately the same quantity of water annually as the Burger King at MAFB, the total amount of water consumed annually by the new shoppette (shoppette and restaurant) could be estimated at approximately 463,000 gallons, a significant increase over the existing shoppette's demand. However, because there are no daily limits imposed on MAFB for water, the minor increase in water demand under the proposed action would have no significant adverse impact on potable water resources.

Wastewater

Wastewater from MAFB is sent to the Catoma Wastewater Treatment Plant in the City of Montgomery. The plant has a capacity of 21 MGD yet receives an average of only 10 MGD (City of Montgomery, 2002a). Given the existing excess operating capacity of the Catoma Wastewater Treatment Plant an increase in wastewater produced under the proposed action would not likely adversely impact the Catoma Wastewater Treatment Plant.

Solid Waste Management

Solid waste generated at MAFB is either recycled or disposed of in the North Montgomery City Landfill located west of MAFB. As of 2002, the landfill had an estimated 21 years of remaining operating life (City of Montgomery 2002b). Given the expected lifespan of 21 years for the landfill, the facility has ample capacity to support the minor increase in overall solid waste levels generated by the proposed action.

4.12.2.2 No-Action Alternative

Under the No-Action Alternative, proposed construction activities at Building 1112 would not occur. Baseline conditions for utility resources would remain unchanged. Therefore, no significant impacts to utilities would occur as a result of implementation of the No-Action Alternative.

5 CUMULATIVE EFFECTS

This section provides: 1) a definition of cumulative effects; 2) a description of past, present, and reasonably foreseeable actions relevant to cumulative effects; and 3) a summary of cumulative effects potentially resulting from interaction of the proposed action with other actions.

5.1 DEFINITION OF CUMULATIVE EFFECTS

Council on Environmental Quality regulations stipulate that potential environmental impacts resulting from cumulative impacts should be considered in an EA. Cumulative impacts are defined as "the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). Recent CEQ guidance in *Considering Cumulative Effects* (CEQ 1997) affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the proposed action. The scope must consider geographic and temporal overlaps among the proposed action and other actions. It must also evaluate the nature of interactions among these actions. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, currently under construction, recently completed, or anticipated to be implemented in the near future is necessary.

To identify cumulative effects the analysis needs to address three fundamental questions:

1. Does a relationship exist such that affected resource areas of the proposed action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
2. If one or more of the affected resource areas of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?
3. If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

5.2 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS

Several projects are planned at MAFB for FY 2003. MAFB maintains a list of all proposed projects for FY 2003 which include the FY 2003 operations and maintenance (O&M) program, work orders and projects on record (per discipline), the proposed housing program, and the Air Force approved military construction (MILCON) program for MAFB (MAFB 2003). The capital improvement program at MAFB is currently being updated and at the time of this submittal has not been approved. However, currently the proposed projects for FY 2003 include 3 buildings proposed for demolition, upgrades and repairs to military family housing, and 63 O&M projects which include various base wide repairs and upgrades, and 5 MILCON projects that are considered "out year" projects that would likely not be realized until 2006 through 2009.

5.3 CUMULATIVE EFFECTS ANALYSIS

The following discussion describes how the impacts of other past, present, and reasonably foreseeable actions might be affected by those resulting from the proposed action, and whether such relationships would result in potentially significant impacts not identified when the proposed action is considered alone.

A review of the MAFB maintained capital improvement program worksheets and the draft Facilities Utilization Board presentation suggests that temporal overlap of construction phases would occur between proposed demolition and O&M projects and the proposed action. Temporary construction traffic associated with these projects would occur throughout the base although no long-term traffic impacts are expected since the projects would be spread throughout the base and would occur over the fiscal year.

Potential air quality impacts of each project are minor and would include only slight increases in levels of air pollution during the demolition and construction phase. However, air pollutant emissions for all projects are well below *de minimis* levels and would not represent significant cumulative impacts even if all construction were to occur in one year rather than spread out over several years.

The noise environment at the installation would continue to be dominated by aircraft and vehicular traffic; no cumulative construction noise impacts would result. No other impacts to common resources for any of the projects have been identified. Therefore, the effects of all identified projects would not result in significant cumulative impacts.

6 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

Analysis of the resource areas contained in this EA concludes that no unavoidable adverse environmental impacts would result from the proposed action or No-Action Alternative.

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7 COMPATIBILITY OF THE PROPOSED ACTION AND ALTERNATIVE WITH THE OBJECTIVES OF FEDERAL, REGIONAL, STATE, AND LOCAL LAND USE PLANS, POLICIES, AND CONTROLS

The proposed action would be appropriately located within the Community-Commercial land use zone of MAFB and would not adversely impact the current or long-range planning goals influencing the local and regional communities. Furthermore, the proposed action would fully comply with applicable Federal, state, and local plans, policies, and controls with respect to land use. In particular, the proposed action would be required to adhere to the requirements of the State of Alabama's erosion and sedimentation control regulations throughout the construction process. In addition, land disturbing activities greater than one acre are required to obtain a land disturbing permit from ADEM. AAFES would coordinate with ADEM to provide any necessary technical oversight for erosion and sedimentation control prior to any ground disturbing or construction activities and adhere to an approved erosion and sedimentation control plan throughout the construction process.

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8 RELATIONSHIP BETWEEN THE SHORT-TERM USE OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

NEPA requires that environmental documentation include a statement on the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. Overall, the long-term productivity of the environment would be maintained with the implementation of the proposed action or the No-Action Alternative.

The proposed action would involve some minor short-term impacts associated with demolition, building site development, and construction of the new shoppette and associated facilities. All other impacts to the built and natural environment are deemed minimal. Therefore, the long-term productivity of the environment would not be appreciably affected by the implementation of the proposed action.

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9 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA also requires that an environmental analysis include identification of "any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects thereof on consumption or destruction of a resource that could not be replaced in a reasonable period of time. The proposed demolition of Building 1112 and construction of a new AAFES shoppette and associated facilities would result in few direct and indirect commitments of resources; these would be related mainly to the consumption of utilities (i.e. electricity, natural gas, and water).

Expenditures of electrical energy and other resources can be considered irreversible and, therefore, irretrievably committed to the proposed project. The new shoppette and associated facilities, to the extent feasible, would include in the building design and overall operation, energy and water saving features that would minimize the use of these resources. With or without these features, however, the natural resources this action demands would be relatively insignificant and not substantially different from the commitment of resources under the No-Action Alternative.

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10 SPECIAL PROCEDURES

Impact evaluations presented in this EA have determined that no significant environmental impacts are expected to occur as a result of implementation of the proposed action or No-Action Alternative at MAFB. This determination is based upon a thorough review and analysis of existing environmental and human resource information, the application of accepted modeling methodologies, and coordination with knowledgeable personnel from the 42 ABW, AAFES, and local, state, and Federal agencies.

There would be no significant environmental and human resources impacts for all resource areas as a result of implementation of the proposed action. Special procedures relevant to air quality (described in Section 4.1, Air Quality), stormwater discharge (described in Section 4.5, Water Resources), and potential contamination (described in Section 4.11, Hazardous Materials and Wastes) are summarized below.

The proposed action would be subject to Stage 1 vapor recovery requirements for gasoline dispensing in the State of Alabama. Therefore, AAFES would submit a Stage 1 Gasoline Dispensing Permit Application (Form 197) to ADEM for review prior to construction.

The proposed action would disturb greater than one acre of land at MAFB. Therefore, AAFES would contact the ADEM Water Division and file a Notice of Registration for NPDES General Permit coverage. In addition, a Construction Best Management Practices Plan would be developed and implemented on-site for the duration of the construction period.

Review of documents describing the investigations and actions completed to date for the SS-010 site indicates that there are groundwater contamination plumes extending north and northeast from the Fuel Tank Farm (ST-010) and down gradient towards Building 941. Both IRP sites are currently in the investigation/corrective action process as part of the base-wide OU-1 groundwater cleanup strategy outlined in the Proposed Plan for Maxwell AFB. No groundwater contamination is known to occur at the proposed action site and the existing groundwater contamination plume appears to be flowing down gradient away from the up gradient project site. Soil sampling conducted at the Day Street Auto Pride Service Station facility indicate no reportable soil contamination, indicating no further action or study is warranted. In order to minimize the threat of exposure to potentially contaminated soils at the site, any soils excavated as part of the proposed action would be properly segregated by the construction contractor and then sampled by representatives of the Environmental Section at MAFB. Sample results would determine whether soils can be reused on the site or require proper disposal off-site at a facility permitted to receive the soils pursuant to appropriate State of Alabama regulations. Furthermore, procedures to minimize dust during excavation and construction will be implemented on-site. Therefore, no significant impacts would occur as a result of implementing the proposed action.

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U.S. Fish and Wildlife Service (USFWS). Letter from Larry Goldman, Field Supervisor with the U.S. Department of Interior, USFWS concerning the presence of Federally-listed and proposed endangered or threatened species at MAFB. 8 January. (see Appendix A –

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12 LIST OF PREPARERS

This report was prepared for, and under the direction of, the Army and Air Force Exchange Service (AAFES) by The Environmental Company, Inc. (TEC). Members of the professional staff are listed below:

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Appendix A

IICEP Correspondence

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IICEP RESPONSE SUMMARY

Environmental Assessment for
Proposed Construction of
Army and Air Force Exchange Service New Day Street Shoppette
at
Maxwell Air Force Base
Montgomery, AL

Date	*IICEP Agency*	*Type*	*Issues/Concerns*
12/16/02	Jo Lewis, State of Alabama Department of Conservation and Natural Resources	Letter	• Their database indicates the area of interest has had no biological survey performed. • The closest sensitive species as recorded in their database occurs approximately 8.3 miles from the proposed action site.
12/16/03	Richard Liles, Assistant Commissioner State of Alabama Department of Conservation and Natural Resources	Letter	• No objections to the proposed project provided that it does not adversely affect endangered or threatened species or impact ambient water quality.
1/2/03	Bruce Porter, U.S. Department of the Interior, Fish and Wildlife Service	E-mail	• Requested a copy of the entire Draft EA to fulfill requirements of the Fish and Wildlife Coordination Act. Draft EA has been sent to Mr. Porter.
1/8/03	Larry Goldman, Field Supervisor, U.S. Department of the Interior, Fish and Wildlife Service	Letter	• No Federally endangered, threatened, or proposed species, or their designated Critical Habitat occur in the project area. No further endangered species consultation is expected.

IICEP DISTRIBUTION LIST

Environmental Assessment for
Proposed Construction of
Army and Air Force Exchange Service New Day Street Shoppette
at
Maxwell Air Force Base
Montgomery, AL

Mr. Larry E. Goldman U.S. Department of Interior Fish and Wildlife Service 2001-A Highway 98 P.O. Box 1190 Daphne, AL 36526	State of Alabama Department of Conservation and Natural Resources State Lands Division Natural Heritage Section 64 North Union Street P.O. Box 301456 Montgomery, AL 36130
Alabama Department of Environmental Management P.O. Box 301463 1400 Coliseum Boulevard Montgomery, AL 36130	U.S. Army Engineer District, Mobile P.O. Box 2288 Mobile, AL 36628-0001
Mr. Richard C. Liles State of Alabama Department of Conservation and Natural Resources Game and Fish Division 64 North Union Street P.O. Box 301456 Montgomery, AL 36130-1256	Ms. Ann B. Harper Central Alabama Regional and Planning Development Commission 125 Washington Avenue Third Floor Montgomery, AL, 36104
Ms. Stacye Hathorn State of Alabama Alabama Historical Commission 468 South Perry Street Montgomery, AL 36130-0900	

LEC Maxwell Support Division

5 December 2002

Mr. Larry. E. Goldman
U.S. Department of Interior
Fish and Wildlife Service
2001-A Highway 98
P.O. Box 1190
Daphne, AL 36526

Dear Mr. Goldman:

Maxwell Air Force Base (MAFB) is preparing an Environmental Assessment (EA) for the proposed demolition and reconstruction of an Army and Air Force Exchange Service (AAFES) shoppette at MAFB, AL. The proposed action includes demolition of the existing 8,345 square foot shoppette and construction of a 17,762 square foot shoppette building and supporting facilities in the same location. The Draft Description of Proposed Action and Alternatives (DOPAA) is included with this correspondence as an attachment.

The environmental impact analysis process for this project is being conducted by the Air Force in accordance with the Council on Environmental Quality guidelines pursuant to the requirements of the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, *Intergovernmental Review of Federal Programs*, we ask your participation by reviewing the attached Draft DOPAA and solicit your comments concerning the proposed action and any potential environmental concerns. In particular, we are requesting information regarding federally listed or proposed species that may be present in the potentially affected area. Until the extent of the potential impacts to species is determined, we will make no determination regarding the need for Section 7 consultation. Please provide written comments or information regarding the action at your earliest convenience but no later than 30 calendar days from receipt of this letter.

Responses should be directed to our consultant, The Environmental Company, Inc. The point of contact is Ms. Christine Davis; she can be reached at (805) 564-4940 or by email at cedavis@tecinc.com. Please forward written comments to Ms. Davis at 1525 State Street, Suite 103, Santa Barbara, CA 93121. To expedite delivery of information, you may fax it to Ms. Davis at (805) 564-4988. Thank you for your assistance.

Sincerely,

Janet Lanier
MSD/CEV
Maxwell Air Force Base

Attachment: Draft DOPAA

400 Cannon Street, Building 1060
Maxwell AFB, AL 36112
Tel.: 334-953-5260 • 334-396-4004

STATE OF ALABAMA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
64 NORTH UNION STREET
MONTGOMERY, ALABAMA 36130

DON SIEGELMAN
GOVERNOR

RILEY BOYKIN SMITH
COMMISSIONER

STATE LANDS DIVISION
JAMES H. GRIGGS, DIRECTOR

NATURAL HERITAGE SECTION
GREGORY M. LEIN, CHIEF
TELEPHONE (334) 242-3484
FAX NO. (334) 242-0999

December 16, 2002

Ms. Christine Davis
LEC Maxwell Support Division
1525 State Street, Suite 103
Santa Barbara, CA 93121

RE: Sensitive Species Information request
Maxwell AFB Shoppette

Dear Ms. Davis:

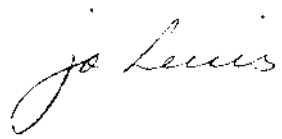
Our office received your request on 12/10/2002 and has since developed the following information pertaining to state protected, federally listed threatened and endangered species, and species that we believe to be sensitive to environmental perturbations. I have enclosed a list of sensitive species which the Natural Heritage Section Database or the U.S. Fish and Wildlife Service have indicated occur or have occurred in Montgomery County. Additionally, I have listed some potentially helpful and informative web sites at the end of this letter.

The Natural Heritage Section database contains numerous records of sensitive species in Montgomery County. Our database indicates the area of interest has had no biological survey performed at the delineated location, by our staff or any individuals referenced in our database. Therefore we can make no accurate assessment to the past or current inhabitancy of any federal or state protected species at that location. A biological survey conducted by trained professionals is the most accurate way to ensure that no sensitive species are jeopardized by the development activities. The closest sensitive species is recorded in our database as occurring approximately 8.3 miles from the subject site. This state protected raptor is found around large bodies of water. Destruction and disturbance of nest sites should be avoided and "taking" of the animal itself is prohibited.

I hope this information will be useful to you. The provided information is to help you in fulfilling your necessary legal obligations. The information does not suggest that protected species are not at this location. The specific location of a sensitive species is considered confidential information by a State Lands Division Regulation and can be released only to individuals who enter into a confidentiality and indemnity contract with the State Lands Division.

The Natural Heritage Section provides this information as a service to the people of Alabama. The NHS acts as a clearing house for species distribution data. We happily accept any information environmental researchers are willing to donate. Sensitive species exact locations are kept confidential. If you would be willing to donate any information to this database, we will be better able to assist all individuals interested in environmental compliance.

Sincerely,



Jo Lewis
Database Manager

Enclosures

Potentially helpful web sites

Information about federally listed species
http://www.pfmt.org/wildlife/endangered/
http://www.al.nrcs.usda.gov/FOTG/alTE.html
http://ecos.fws.gov/webpage/webpage_usa_lists.html?#AL
http://southeast.fws.gov/daphne/specieslst.htm

Non-game species regulation starts on page 75
http://www.dcnr.state.al.us/agfd/2000-2001_regs.pdf

list of Alabama State Parks and links to more info
http://www.dcnr.state.al.us/parks/state_parks_index_1a.html

http://bluegoose.arw.r9.fws.gov/
http://www.fws.gov/where/regfield.html

list of Refuges in AL with additional pages of refuge details
http://refuges.southeast.fws.gov//index.html

ALABAMA'S FEDERALLY LISTED AND STATE PROTECTED SPECIES (BY COUNTY)

This list is a combination of the June 2001 U.S.F.W. Service (Daphne field Office) federally listed species by county list and the Alabama State Lands Division's Natural Heritage Section Database of species distributions data. This list is continually being updated, and, therefore, it may be incomplete or inaccurate and is provided strictly for informational purposes. It does not constitute any form of Section 7 consultation. We recommend that the U.S.F.W. Service Field Office in Daphne be contacted for Section 7 consultations. Site specific information can be provided by the Alabama State Lands Division's Natural Heritage Section and/or the U.S.F.W. Service (Daphne field Office) prior to project activities. To be certain of occurrence, surveys should be conducted by qualified biologists to determine if a sensitive species occurs within a project area. Species not listed for a given county does not imply that they do not occur there, only that their occurrence there is as yet unrecorded by these two agencies.

Key to codes on list:
Federal E - Endangered
Federal T - Threatened
(P) - Historical Record and/ or Possible Occurrence in the County
C - Candidate Species
NEP - Nonessential Experimental Populations

Montgomery

Protection Status	Common name	Scientific Name	State Regulation Applicable
Endangered	Wood Stork	Mycteria americana	220-2-.92 (1) (d)
Threatened	Eastern Indigo Snake	Drymarchon corais couperi	220-2-.92 (1) (c)
State Protected	Osprey	Pandion haliaetus	220-2-.92 (1) (d)
State Protected	Crystal Darter	Crystallaria asprella	220-2-.92 (1) (a)
State Protected	Alabama Map Turtle	Graptemys pulchra	220-2-.92 (1) (c)

Notes:

- Bald eagle Haliaeetus leucocephalus, red-cockaded woodpecker Picoides borealis and the American peregrine falcon (Falco peregrinus anatum) may occur in any county, if habitat exists.
- Wood stork / July - October
- Bald eagle / Wintering birds possible in areas with reservoirs.
- Sea turtles / Only loggerhead is potential nester, the rest are in coastal waters.
- Black bear Ursus americanus sp. - known to exist in Mobile County, but not listed.

-Gulf moccasi nshell Mediondus penicillatus, oval pigtoe Pleurobema pyriforme, Chipola slabshell El liptio chipolaensis, and purple bankclimber Elliptoideus sloatianus, are freshwater mussels of the family Unionidae found only in eastern Gulf Slope streams draining the Apalachicolan Region, defined as streams from the Escambia to the Suwannee river systems, and occurring in southeast Alabama, southwest Georgia, and north Florida. All are listed as "Endangered".

- Fanshell Cyprogenia stegaria, Oyster mussel Epioblasma capsaeformis, Catspaw (purple cat's paw pearlymussel) Epioblasma obliquata obliquata, are historically known to be found in the Tennessee River system and drainage.

-Gentian pinkroot Spigelia gentianoides, has been historically found along the Alabama-Florida border.

-West Indian Manatee Trichechus manatus, have been known to move north along the gulf coast west

ALABAMA'S FEDERALLY LISTED AND STATE PROTECTED SPECIES (BY COUNTY)

This list is a combination of the June 2001 U.S.F.W. Service (Daphne field Office) federally listed species by county list and the Alabama State Lands Division's Natural Heritage Section Database of species distributions data. This list is continually being updated, and, therefore, it may be incomplete or inaccurate and is provided strictly for informational purposes. It does not constitute any form of Section 7 consultation. We recommend that the U.S.F.W. Service Field Office in Daphne be contacted for Section 7 consultations. Site specific information can be provided by the Alabama State Lands Division's Natural Heritage Section and/or the U.S.F.W. Service (Daphne field Office) prior to project activities. To be certain of occurrence, surveys should be conducted by qualified biologists to determine if a sensitive species occurs within a project area. Species not listed for a given county does not imply that they do not occur there, only that their occurrence there is as yet unrecorded by these two agencies.

Key to codes on list:
Federal E - Endangered
Federal T - Threatened
(P) - Historical Record and/ or Possible Occurrence in the County
C - Candidate Species
NEP - Nonessential Experimental Populations

Jefferson

Protection Status	Common name	Scientific Name	State Regulation Applicable
Endangered	Watercress Darter	Etheostoma nuchale	220-2-.92 (1) (a)
Endangered	Upland Combshell	Epioblasma metastriata	220-2-.98 (1) (a)
Endangered	Triangular Kidneyshell	Ptychobranchus greeni	220-2-.98 (1) (a)
Endangered	Southern Clubshell	Pleurobema decisum	220-2-.98 (1) (a)
Endangered	Plicate Rocksnail	Leptoxis plicata	220-2-.98 (1) (a)
Endangered	Leafy Prairie-clover	Dalea foliosa	
Endangered	Cahaba Shiner	Notropis cahabae	220-2-.92 (1) (a)
Threatened	Orangenacre Mucket	Lampsilis perovalis	220-2-.98 (1) (a)
Threatened	Flattened Musk Turtle	Sternotherus depressus	220-2-.92 (1) (c)
Threatened	Finelined Pocketbook	Lampsilis altilis	220-2-.98 (1) (a)
Threatened	Blue Shiner	Cyprinella caerulea	220-2-.92 (1) (a)
State Protected	Vermilion Darter	Etheostoma chermocki	220-2-.92 (1) (a)
State Protected	Eastern Coachwhip	Masticophis flagellum	220-2-.92 (1) (c)
State Protected	Alabama Map Turtle	Graptemys pulchra	220-2-.92 (1) (c)

STATE OF ALABAMA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
P.O. BOX 301450
64 NORTH UNION STREET, SUITE 468
MONTGOMERY, ALABAMA 36130-1450
(334) 242-3486
FAX (334) 242-3489
www.dcnr.state.al.us

DON SIEGELMAN
GOVERNOR

RILEY BOYKIN SMITH
COMMISSIONER

RICHARD C. LILES
ASSISTANT COMMISSIONER

December 16, 2002

Ms. Christine Davis
The Environmental Company, Inc.
1525 State Street, Suite 103
Santa Barbara, California 93121

RE: Construction of AAFES Shoppette
Maxwell Air Force Base - Alabama

Dear Ms. Davis:

Personnel of the Division of Wildlife and Freshwater Fisheries of the Department of Conservation and Natural Resources reviewed the above referenced proposal. We have no objections to this project provided it does not adversely affect endangered or threatened species or impact ambient water quality. Information on federally listed species is available from the U. S. Fish and Wildlife Service. A list of state-protected species is available from the Natural Heritage Program of the State Lands Division at the address below. You are hereby advised that further coordination with the State Lands Division regarding state property rights pertaining to this project may be required. Contact the Lands Division at:

State Lands Division
64 North Union Street
Montgomery, Alabama 36130
334-242-3484

For assistance in delineating wetlands in the project area, contact the U. S. Army Corps of Engineers. This Department will request appropriate mitigation for any wetland impacts.

Sincerely,

Richard C. Liles
Assistant Commissioner

cc: Lands Division

United States Department of the Interior

FISH AND WILDLIFE SERVICE
P. O. Drawer 1190
Daphne, Alabama 36526

IN REPLY REFER TO:

January 8, 2003

Ms. Christine Davis
The Environmental Company, Inc.
1525 State Street, Suite 103
Santa Barbara, CA 93121

Dear Ms. Davis:

We are responding to your letter, dated December 5, 2002, requesting comments on the preparation of an Environmental Assessment for a proposal to demolish and reconstruct an Army and Air Force Exchange Facility (AAFES) at Maxwell Air Force Base, Montgomery County, Alabama. We have reviewed the information you enclosed and are providing the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

According to our records, no Federally endangered, threatened, or proposed species, or their designated Critical Habitat occur in the project area. Therefore, no further endangered species consultation will be required for this portion of the project unless: 1) the identified action is subsequently modified in a manner that causes an effect on listed species or a designated Critical Habitat; 2) new information reveals the identified action may affect Federally protected species or designated Critical Habitat in a manner or to an extent not previously considered; or 3) a new species is listed or Critical Habitat is designated under the Endangered Species Act that may be affected by the identified action.

If you have any questions or need additional information, please contact Mr. Bruce Porter at (251) 441-5864 or visit our website http://daphne.fws.gov.

Sincerely,

Larry E. Goldman
Field Supervisor